

For fast action and camera quality without disrupting the electricity of the local scene,

RYLOP

PHOTOMICROSCOPY

•

porpoise

EN
S PARADE

traveling at high speed and the shattering effect of the driver-controlled tire blast. Re-

Extreme close-ups of tiny soldiering operations put startling dramatic punch into the instructional film, "Soldier," which demonstrates proper soldering technique in a way never before depicted on the screen. Produced by Scope Film Inc. Associates, the film has won the American Film Festival "Blue Ribbon" Award, the Industry

The North American Philips Co., pioneers in advanced X-ray techniques, selected the Arriflex as the ideal motion picture camera to be used with their electronic Image Intensifier. Illustration shows the use of Arriflex 35

...for this document...

ARRIFLEX goes hunting
with the Missouri Conservation Commission

Filming a hawk's swift plunge calls for sharp follow-focus and accurate centering of the viewfinder image. That's one reason biologist Charles W.

A large, detailed black and white photograph of a bee, showing its head, antennae, and thorax. The bee is positioned diagonally across the frame. In the bottom right corner, there is a smaller, rectangular inset photograph. This inset shows a person, likely a photographer, standing next to a piece of equipment, possibly a camera or a light stand, in an outdoor setting. The person is wearing a light-colored shirt and dark pants. The background of the inset shows some foliage and a structure.

ARRIFLEX® achieves macrocinematographic objective for **Moody Institute of Science**

More Data

ARRIFLEX® DELVES THE OCEAN DEEP WITH RON CHURCH

“The Arriflex with its electric drive and reflex viewing is the ultimate for underwater work.” Ron volunteered in a recent magazine interview. “And its 400 T capacity is tremendously beneficial, when you go to all the trouble involved to get yourself down deep, you don’t like coming up to change film [underwater].”

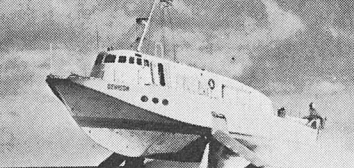
photograph. See also 101

Academy Award-Winning team triumphs again at expo67

A remote valley, isolated from large population centers, and surrounded by weather-protecting mountains, is the ideal place to study the effects of air pollution on the environment.

"My assignment," explained Peter B. Good, who

ARRIFLEX at work — ONE OF A SERIES



ARRIFLEX®
tracks sea trails
of new Grumman
Aircraft Hydrofoil Ship

How did the experimental, new hydrofoil ship, the H. S. Denison, perform on its first open-ocean trials? The officials of Grumman Aircraft Engineering Corp. have

itself while underway at 50.60 knots. We built special platforms at the base of the foiler to enable our camera crew to get down to water level."

The camera on the Denison's roof deck recorded the revolutionary-designed ship's reaction to a wide variety of sea conditions. From all four points of view, the Russian

ARRIFLEX at work — ONE OF A SERIES

Hand-Held **ARRIFLEX® 35** Films **THE INCIDENT**
A Tour-de-Force in New Filming Techniques

ARRIFLEX® at-work



Academy Award to the Arriflex 35

“ This compact light-weight motion picture camera which utilizes a mirror reflex system for continuous focusing and viewing without parallax is a product of advanced engineering design and construction it provides the motion picture industry with a hand-held camera of extreme mobility which broadens the range of photographic techniques. ”

ARRIFLEX at work...

documenting some of the most challenging assignments in cinematography ...

and the skills and ingenuity of sophisticated filmmakers in solving them

Arriflex users, generous with their time and knowledge, have submitted hundreds of assignment reports in response to our interest in Arriflex applications. These reports are the basis of our "Arriflex-at-Work" advertising series. These popular and informative advertisements have appeared continuously for over a decade in leading photographic magazines and film journals.

In answer to the continual requests for reprints, we present herein a selection of thirty of these "case histories." They cover the major areas of interest indicated by these requests.

As you will see, these reports cover both studio and location assignments. They were condensed from the notes of men who used Arriflex cameras in the Arctic and in the Tropics; in the laboratory and in the school room; on the ocean floor and on the edge of space. Some of these reports relate to films made for entertainment; others were made for instruction; documentation, advertising, public relations, or in endeavors to broaden and expand film maker's art.

Taken in total, these reports sum up the tremendous scope of cinematography today. Moreover, they are a tribute to the men, the techniques, and the tools that meet the challenges of scientific, educational, industrial, government, and theatrical film making.

We invite you to tell us of an especially difficult or unusual film assignment, and permit us to consider your report for an Arriflex-at-work installment, in our advertising series.

INDEX

SCIENCE, EDUCATION, and TRAINING

Pages 5, 6, 7, 8,
9, 10, 11 and 12

COMMERCIAL FILM PRODUCTION

Pages 14, 15, 16, 17,
18, 19, 20 and 21

INDUSTRY and GOVERNMENT

Pages 23, 24, 25,
26, 27, 28 and 29

DOCUMENTARIES, TELEVISION, SPORTS

Pages 31, 32, 33,
34, 35, 36 and 37

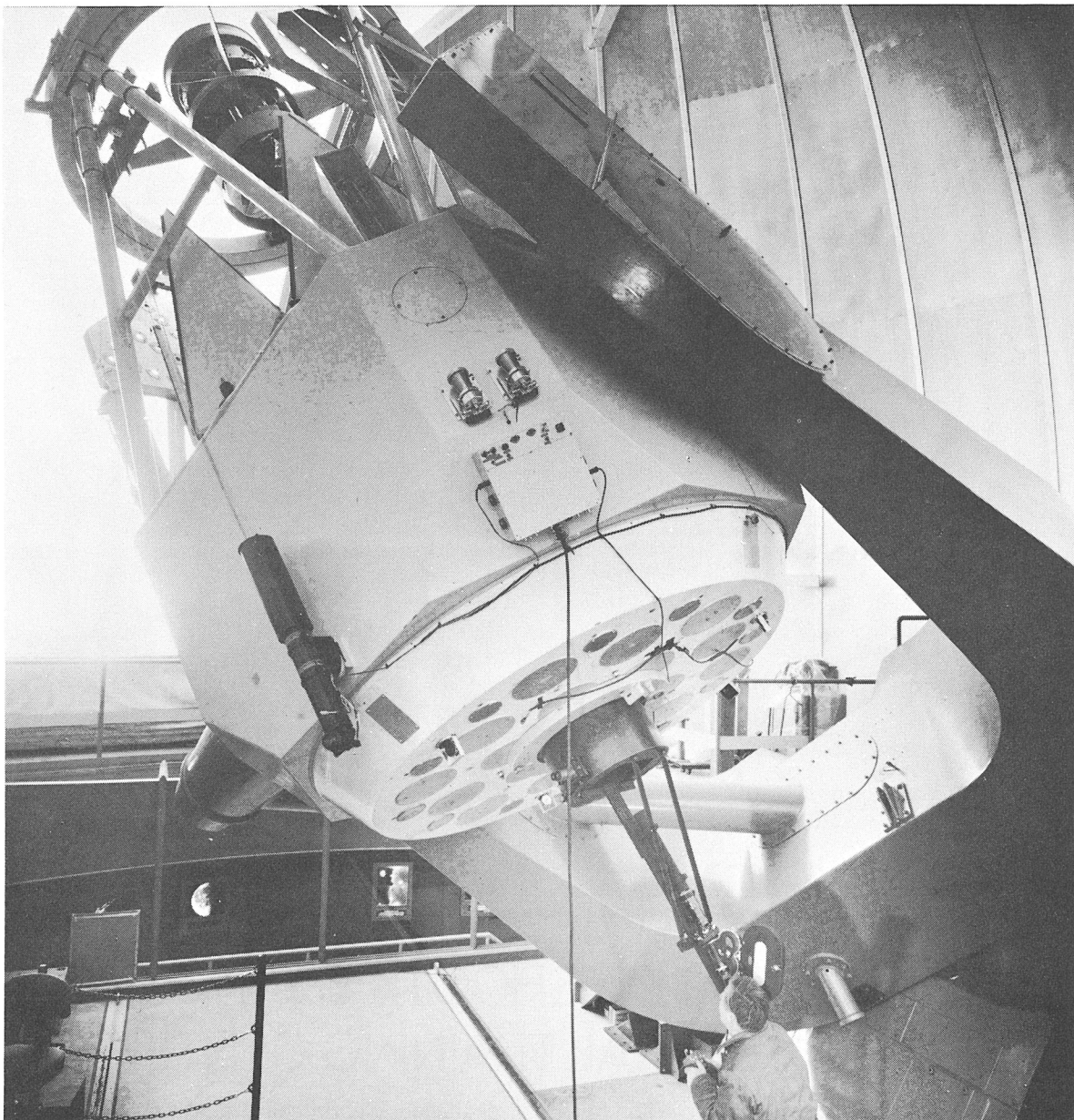
SCIENCE, EDUCATION, and TRAINING

While the majority of films made for scientific, educational, and training purposes are made by professional cinematographers, a significant and growing number of films in these areas are made by the scientists, doctors, engineers, and educators themselves. To such men, the camera is less of a creative tool than an instrument, selected to perform a special function. Their preference for Arriflex results from the fact that these cameras epitomize the criteria used for selecting any fine instrument; outstanding quality, highest standards of performance, sophisticated design, and simplicity of operation.

The operation of an Arriflex camera can be mastered quickly. The unmatched flexibility of the Arriflex system makes the camera the obvious choice for the doctor filming a new technique, the biologist who wants to shoot time-lapse through a microscope, or the teacher working on a case study. And as a system camera, an Arriflex is as economical as it is versatile. The user purchases precisely the equipment he needs and is not obliged to pay for unused features or accessories.

Arriflex cameras, by virtue of their lightweight and compactness, are easy to set up. Their use is not restricted by space limitations. Arriflex cameras invite informal and candid shooting, often the preferred technique when filming training operations with non-professional 'actors'.

To the scientist, as well as to the professional film maker, when it's time to put it on film, their common choice is Arriflex.



ARRIFLEX® is astronomer's aide at Kitt Peak National Observatory

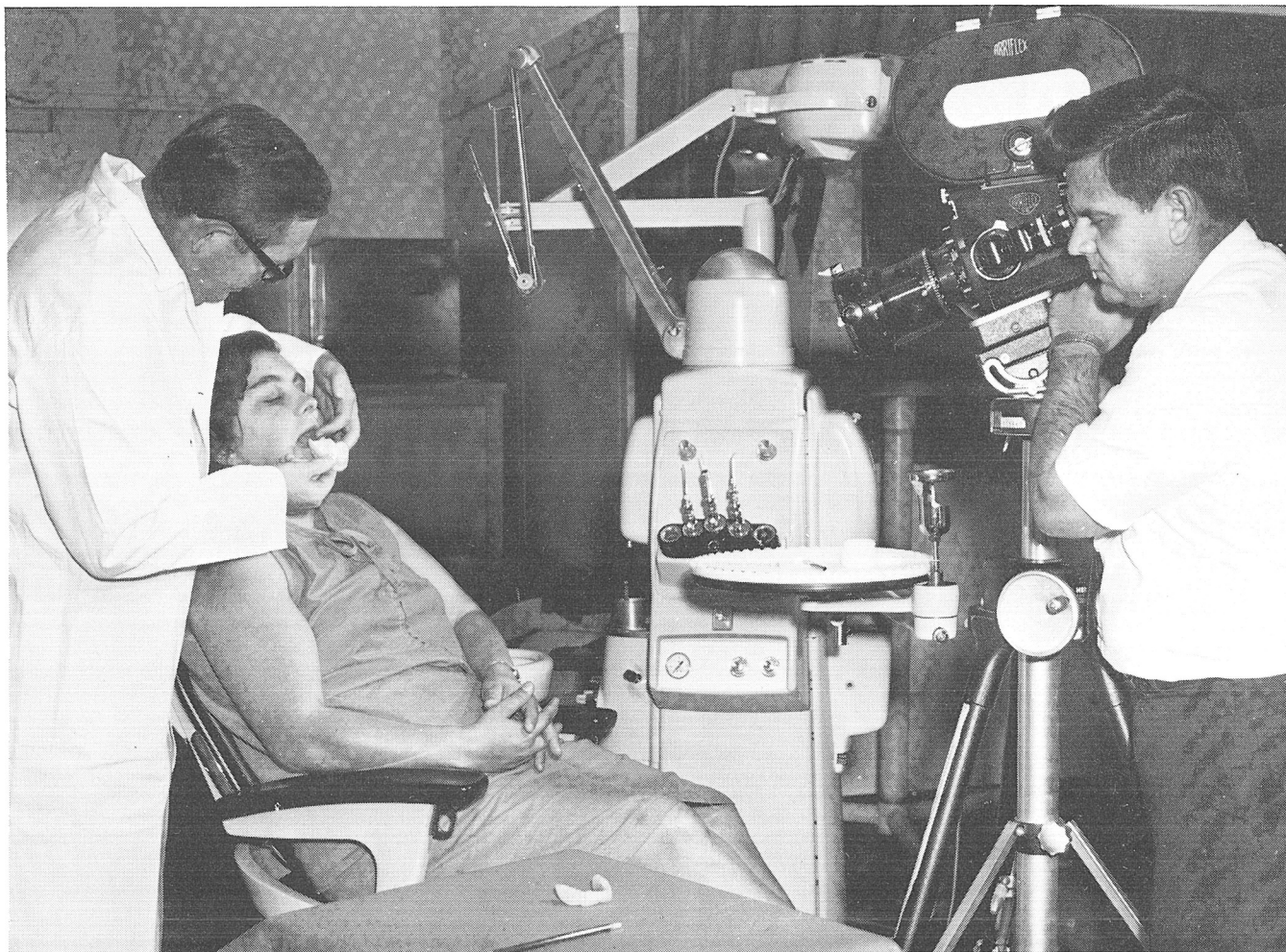
High on a rock-bound mountain peak in Tucson, Arizona, is the Kitt Peak National Observatory, site of the world's largest solar telescope. The magnificently modern research center is operated by AURA, The Association of Universities for Research in Astronomy, Inc., under contract with the National Science Foundation. Absorbed in current research projects are astronomers from the leading universities, the observatory's own Photography Department and its Arriflex 16mm Motion Picture Cameras.

"We're presently using the Arriflex 16 to photograph 'seeing' conditions, or air mass turbulence, in our new 84" telescope, fifth largest in the world," explained John H. Lutnes, head photographer at Kitt Peak. "We have the Arriflex mounted on a special bracket on the cassegrain focus of the telescope, which in turn is focused on the limb of the moon for illumination, and imaged past a knife edge onto film—a process similar to Schlieren photography."

"The projected black and white film displays an image of the 84" mirror as background, over which is seen a distorted wave front within the telescope and housing dome. We can separate the slower moving turbulence inside the dome and the more active turbulence outside the dome by exposing the film at approximately 12 FPS."

"We selected the 16mm Arriflex for several reasons... versatility, dependability, compactness, ruggedness, and the innumerable accessories available," Lutnes added. "In scientific research the quality of equipment often determines an experiment's qualitative results."

Qualitative results... criterion for research centers throughout the world... is the criterion for Arriflex too. And a major reason why cinematographers in the exacting fields of science and research depend on an Arriflex.



Dr. James House, Professor of Prosthodontics, School of Dentistry, Indiana University, demonstrating a prosthetic technique of complete denture construction

ARRIFLEX® 16BL SHOOTS 8mm MOVIES FOR V.A. DENTAL TRAINING CENTER

Hundreds of subjects as diverse as new information from research labs, new drugs, new techniques or equipment . . . each requiring anywhere from 3 to 22 minutes to present . . . each having to be available to professionals everywhere in the country . . . and each having to be as accessible as a textbook, available at a moment's notice. This was the problem that confronted the Veterans Administration Dental Training Center. A system had to be devised that would fill all these requirements and help keep dentists abreast of mushrooming developments in their profession.

Compact 8mm cartridge films appeared to be the ideal solution – not only for their ease of shipping and storage, but for the simple work they make of exhibition as well. Using standard self-contained sound projectors with rear-projection screens, any tabletop becomes a screening room for these portable units without the time loss or encumbrance of a projectionist, complicated threading procedures, or necessity of darkness. The instant-loading cartridge make color and sound as simple as the press of a button, repeatable whenever required, as often as necessary.

But on the production end were the requirements that

challenge every medical film. Camera equipment must be compact and maneuverable to close in on physically small areas, without interfering with the procedure being filmed. And – of critical importance are image sharpness, resolution, steadiness and color fidelity.

Again finding the single answer to many requirements, an Arriflex was selected to shoot the original footage, for subsequent reduction to the 8mm format. By using 16mm Ektachrome Commercial film, handling and editing are simplified, and it becomes possible to make large quantities of prints with optimum contrast and color rendition. Furthermore, by providing a 16mm original, each film can be made available for large-screen projection if ever deemed necessary.

And as the program continues, Arriflex will help maintain the critical standards essential to films of this nature. For, from medical documentaries reviewed on 10-inch screens to Hollywood features projected to theatre proportions, Arriflex is relied upon . . . providing the capabilities demanded by filmmakers for whom nothing short of perfection will do.



ARRIFLEX[®] records Myofibril Contraction in time lapse cinematography at Pasadena Foundation for Medical Research

The beating heart owes its rhythmic pulsation to the synchronized contraction of myofibrils—long, thin sub-cellular components of individual heart muscle cells.

Investigations of myofibril microanatomy have revealed a series of cross-striations along the course of this organelle, which is itself about a micron in diameter. The striations alternate in a regular progression of dense bands (called A-bands) and lighter bands (called I-bands). When a striated muscle from a vertebrate is near its full relaxed length, an A-band is commonly about 1.5 microns and an I-band about 0.8 micron long.

Beating myocardial cells are maintained in tissue culture at the Pasadena Foundation for Medical Research for basic studies on the nature of rhythmic contraction. Dr. Frederick H. Kasten, head of the Foundation's Ultrastructural Cytochemistry Department, was faced with the problem of analyzing the contraction of these

fibrils—contractive bursts of only a tenth to a fiftieth of a second occurring about every two seconds. A long series of still photos failed to provide needed data.

C. George Lefeber, chief biomedical photographer, assembled a strobe-lit phase-contrast microscope unit to freeze the image with a time-lapse motion picture camera. He reported, "From the varied 16mm camera inventory in the lab, an Arri was selected because of the advantages offered by its mirror-shutter reflex system. When the shutter is closed, a clear, bright viewing image can be seen and when it is open, there is nothing interposed between the film and microscope optical system to degrade the image. An Arri Intervalometer was chosen to provide time-lapse camera drive."

The versatile Arriflex 16 adapts to any assignment in professional cinematography. Try it. Discover for yourself why Arriflex is "first choice."

ARRIFLEX® 16BL

studies students for University of Wisconsin

Just as the importance of a solid education has magnified immeasurably in recent-years, so have the difficulties in providing ever-increasing amounts of information to ever-increasing numbers of students. Educational television in the classroom has been one solution—but whether it provides a clear, lasting understanding for elementary-school subjects is a question that, for the sake of these young students' future, must be answered without room for doubt.

What better way to explore this question than to film the student's reactions to the educational telecasts themselves. The films could provide any number of experts an intimate, close-up look at the situation, without intruding and interfering in the actual learning process.

But this, in turn, demanded that the cameraman himself make no intrusion... the first challenge facing Jim Santulli, cinematographer for WHA-TV, educational station for the University of Wisconsin. As Jim puts it, "kids have an incredible interest in anything new—and present them with the excitement of a movie production in their own classroom and, well, you can guess where they'll focus their attention."

Armed with an Arriflex 16BL equipped for single-system sound recording, Jim added his skills as cameraman to those of psychologist, tutor and diplomat. "We started with a question-and-answer session about the camera. I felt that once the kids were familiar with it, they would accept its presence and pay it no attention." Having implanted this casual attitude, Jim was ready to attempt his next hurdle—to actually shoot the students without distracting them from the lesson.

"I simply began to move around the class during the program, and was able to film individual reactions as I saw them without disturbing the television lesson or the classroom teacher."

Jim credits the camera for much of his success. "The 16BL is completely inaudible just a foot or two away, so I was able to get in really close. Its easy maneuverability and one-man operation really paid off, since I had to be cinematographer, assistant, tripod and dolly all in one. But its convertibility to single-system sound recording is what made the day—I don't know what might have happened if I'd been dragging sync cables all over the place, or if we'd needed another man following me with a sound recorder around his neck. I honestly believe I could not have gotten the sound and picture quality I did with any other camera."

Jim concludes by describing the 16BL as the workhorse of WHA-TV's photo department. Little wonder for, all over the world, cameramen on industrials, commercials and features, as well as educational films, acknowledge Arriflex as being at the head of its class.





Jim Santulli, Chief Cinematographer WHA-TV University Extension, The University of Wisconsin



MIS PHOTOGRAPHER ARAM PETER MARGOSIAN USING SYNCHRONIZED FLASH ILLUMINATION AND MODIFIED KILFITT LENS

ARRIFLEX® achieves macrocinematographic objective for Moody Institute of Science

A 10-year project of photo-documenting bees maintaining their cities, communicating, telling time and even measuring distances geometrically, was culminated when Dr. Irwin A. Moon, Director of the Moody Institute of Science, Los Angeles, California completed filming "City of the Bees." In making the notable documentary, which has attracted widespread acclaim both here and abroad, Moody Institute of Science photographers relied heavily on the Arriflex 16's mirror reflex features, highly-maneuverable compactness and famed versatility. Exploring unusual procedures in macrocinematography, they synchronized stroboscopic light pulses with the reflex mirror-shutter. This permitted maximum film exposure without sub-

jecting the sensitive, delicate bees to the disturbing, destructive heat of standard lighting. The background story of this fascinating production is reported in the SMPTE JOURNAL, September, 1962 and FILM WORLD of February, 1963.

Utilizing a variety of lenses and lens combinations, the challenges of shooting from moving vehicles... within closely-restricted tree and hive areas... or combining macroscopic subjects with normal backgrounds—were all easily met. In successfully filming "City of the Bees," Arriflex once again proved itself indispensable as a photographic tool of almost limitless capabilities. On location, or in studio, it will do the same for you.



Photographer, Roger Ruhlin (right) and director, R. Brinkman filming bad weather sequences.



Arriflex spans point of view from driver's seat.

ARRIFLEX® goes on the road for ALLSTATE INSURANCE CO.

Allstate Insurance Companies of Skokie, Illinois, has put Arriflex 35's in the driver's seat and on the road. As a result, this year alone, some 60,000 students in high schools, colleges and military bases throughout the country will receive realistic behind-the-wheel driver training within the confines of their classrooms.

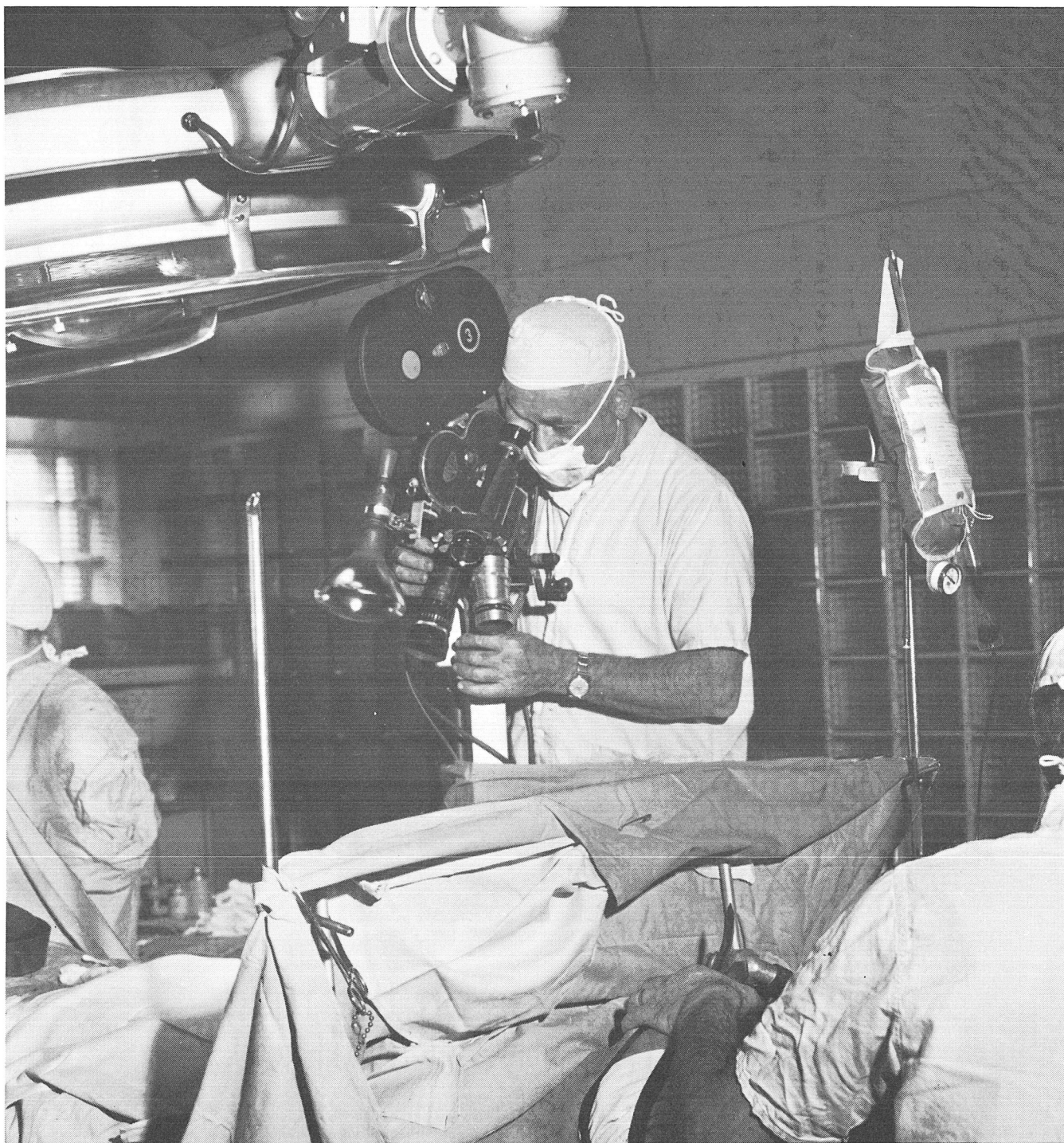
Constant travel companions in these film assignments are Film Director Richard C. Brinkam, Cameramen Roger Ruhlin and John Peterson, and two Arriflex 35mm motion picture cameras, equipped with Ultrascopes anamorphic lenses for wide-screen filming. As illustrated in the production stills, one Arriflex spans the point of view from the driver's seat. A second Arriflex, mounted on the tower of a following truck, records "snatches" of the road behind the car, reproducing the quick view a driver gets in an over-the-shoulder glance or through his rear view mirror.

"Filming full color wide-screen movies within the close confines of the driver's position requires extreme maneuverability which the compact anamorphic lens equipped Arriflex 35 permits," Director Brinkham reports. "It enables us to get the wide sweep necessary to simulate the driver's field of vision, to record exactly what he sees in any and all driving

situations. The scenes shot in full color 35mm were reduced for 16mm projection with resulting unparalleled breadth, depth and clarity."

The films are used in the classroom in conjunction with the Allstate Good Driver Link Trainer—a machine simulating the behind-the-wheel appearance and operation of a modern American automobile. The student "drives" the machine with his eyes "on the road," as it is visualized on the screen. He accelerates, steers, turns, stops, brakes, responding to the filmed situation. His reactions are electronically matched with the ideal response for each situation and his performance scored. Allstate's driver education films are regarded as the finest ever made. That's what happens when you put Arriflex in the driver's seat.

First Choice of professionals . . . Lightweight, compact, rugged and versatile, the Arriflex 35 masters every filming assignment from hand-held newsreel shots to "blimped sound shooting, from black & white to color, from conventional to wide screen filming. More than ever, Arriflex 35 rates "first choice" for motion picture assignments in Industry, Science, Education, News, Sports and Entertainment.



ARRIFLEX® ENTERS SURGERY TO FILM HUMAN KIDNEY TRANSPLANT

When the surgical team, headed by Drs. Joseph E. Murray and J. Hartwell Harrison, convened in Boston's Peter Bent Brigham Hospital to perform a human kidney transplantation, one of medical science's newest and most intricate operations, an important member was the man behind the camera.

He was Leo Goodman, chief medical photographer with The Mallory Institute of Pathology, Boston City Hospital. His task: to film in color the entire operation proceedings, capturing every critical moment. His challenge: working under stress in restricted space with no margin for misjudgment or mishap. His instrument: the compact Arriflex 16mm motion picture camera... chosen, says Goodman, "because I know what I see in the viewfinder is exactly what's being recorded. The camera

becomes an uncanny extension of oneself... with hardly a thought devoted to its mechanics."

Honored by the 48th Annual Clinical Congress of the American College of Surgeons, Goodman's self-edited film, HUMAN KIDNEY TRANSPLANT, won the award for excellence in educational motion pictures devoted to surgery. It now serves as a Surgical Resident Teaching Film for doctors studying the operative techniques of vital organ transplantations, one of surgery's major advances in prolonging human life.

From operating room to outer space... hand-held, on tripod or remotely controlled... the versatile Arriflex adapts to any assignment in professional cinematography. Try it. Discover for yourself why Arriflex is "first choice."

COMMERCIAL FILM PRODUCTION

The successful commercial filmmaker is recognized by his ability to handle any and all assignments. He may work on theatricals one week and shoot a TV commercial the next. At times he shoots in a studio and at other times he may be shooting from a car or in a subway train.

The key to the man is versatility. And because he seldom knows what challenges the next assignment brings, he demands the same versatility of his camera equipment. His choice is most often Arriflex.

A basic Arriflex, the 16S for example, meets any and all 16mm camera requirements. Use it handheld, on a shoulder brace, or on a tripod. Shoot silent or synch-sound. Slip it into a blimp and it's a studio camera. Put it on a stand and it's right for animation or copy work. Snap it into an underwater housing and it's ready to explore the depths. Change the lubrication and you can use it in temperatures so cold that just about any other camera would be nothing more than frozen metal.

This tremendous Arriflex versatility is attributed to an unbelievably rugged and reliable design delivering unmatched performance, and to a systems concept that permits the user to select from hundreds of accessories, permitting him to adapt his Arriflex for any requirement. Most commercial film makers will use nothing less than Arriflex. For them there's too much at stake.

ARRIFLEX® 35 digs in to score for Harry Hamburg's V-8 Cocktail Juice Commercials

V-8 Cocktail Juice wanted to present themselves as the 'different' kind of drink . . . and so in doing, gave Harry Hamburg Productions, New York, a wildly different kind of assignment.

"The central theme," writes Harry, "involved a typical American family living in a 'rut' because they all drank the same old breakfast juice. After trying V-8 they came charging out of their ruts, ready to face the day."

But most producers would have required a more potent beverage to face the day that shooting began on the commercial series. "The logistical problems proved to be unbelievable. Ruts—holes 15 feet square and 9 feet deep, had to be dug in the loveliest neighborhoods we could find, in California, New York and New Jersey." The problem, of course, was how the neighborhoods might react when they found Harry, his crew and equipment, the cast, a couple of steam-shovels and a bulldozer or two on local park lawns. It was a situation requiring exceptional tact on Harry's part, and failing that, exceptional speed.

"We often started shooting before the holes were finished, and started filling in while we were still shooting. Have you ever tried to be creative with irate citizens breathing down your neck? And how do you keep a white tablecloth white with those machines spewing earth and dust all over the place?"

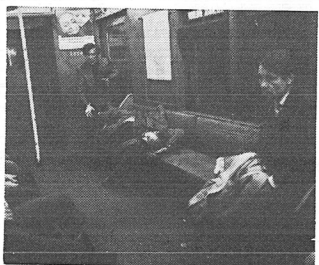
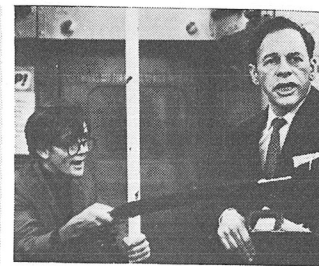
Harry recalled, "with location problems, tight shooting schedules, difficult angles and uncertain weather, the only thing that didn't give us trouble was our camera. We exposed 55,000 feet of color film for the 30 second commercials. The Arriflex 35-2C was chosen because it's always been our favorite—for portability, bright reflex viewing, quick-change magazines and exceptional all-around operating convenience."

In view of the traveling, and the many elements he had to coordinate and transport, Harry could allow for only one camera—that he chose an Arriflex was typical. Because cinematographers the world over have come to trust Arriflex for critical 'one chance' shooting in every kind of production, under all conceivable conditions. Its mobility, unique in the 35mm field, is one major reason. Its ability to adapt from a hand-held 'wild' camera to a complete blimped studio-sync-sound system is another. Its A-Z capability has helped users all over the world avoid getting stuck in a cinematic rut.





Camerman: Mario DiLeo



Gerald Hirschfeld A.S.C., camera operator Dick Krating and the derelict in subway car set.

Hand-Held **ARRIFLEX® 35** Films **THE INCIDENT** A Tour-de-Force in New Filming Techniques

20th CENTURY-FOX

"New wave"; "cinema verite" ... call it what you will ... today's young film craftsmen are pursuing new patterns in cinematography with a vigor that amounts to a crusade.

What they're striving for is honesty—stripping the gauds and trappings from film-making, using the camera, not as a medium, but as an extension of the viewer's senses, to involve him fully in the emotional turmoil of what's happening.

How do you do it? Ask Gerald Hirschfeld, A.S.C., Vice President of MPO Videotronics. He directed photography for 20th Century-Fox's award-winning film, "The Incident." This tense and bitter drama shot in a New York subway, is a perfect case-in-point of the filmic approach.

Hirschfeld's camera for the subjective shots, was the Arriflex 35. "I wanted to get empathy here," he says.

"I wanted everyone who saw the film to literally taste the fear and desperation of those trapped people. I wanted to get all of the harshness of light, the hard bitterness of the hoodlums, and the isolation of each character in his own non-involvement. And, I wanted to get the real feeling of the subway—the sharp jolts, the screeching curves, the jarring and swaying.

"I needed a camera that was light and mobile enough to be hand-held, yet optically well-designed for accurate reflex composing. It had to load quickly and respond to every demand, without needing a careful of back-up equipment."

New ideas mean new challenges, new demands ... and every one yields new proof of Arriflex superiority. No wonder it's the one camera film pioneers prefer, almost unanimously. Try an Arriflex yourself, next time, and find out why.



ARRIFLEX® plays dual role—shoots animation and live action for Multiple Sclerosis Society of America

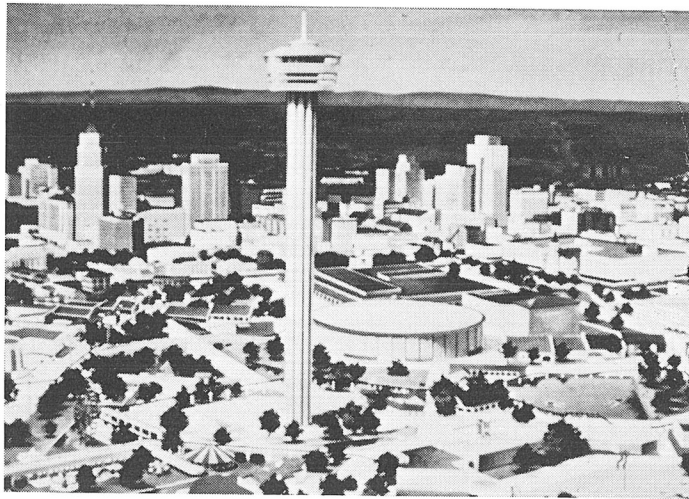
How do you convey the crippling effects of Multiple Sclerosis in some 50 countries throughout the world—in only 83 seconds of running time? This was just one of the problems facing Rex Fleming in filming a sequence for "My Friend Joe," a 13½ minute SOF color production for the Multiple Sclerosis Society of America. "Even more restrictive than the travel costs," writes Mr. Fleming, "was the short time allotted this sequence on the screen. Footage from the various locations could never have been presented within the required 83 seconds."

Mr. Fleming's answer was animation—simple in technique to maintain the film's low budget, yet high in creativity, quality and effectiveness to arouse public support of research programs. Working with actor Jimmy Stewart's pre-recorded narration, Mr. Fleming shot the fast-moving animation sequence with the elements of each scene merging into the next. "Since the objects in each scene literally re-form themselves into each succeeding scene, we were not only able to convey our point in the 83 seconds, we also reduced the number of cells required to 178 instead of almost 1000. We now use this technique quite often, sometimes amazing our clients by show-

ing them how limited animation can strengthen their message while reducing costs."

An Arriflex 16 shot both the live action and animation sequences. "The choice was a natural. Budgetary considerations limited the amount of equipment we could apply, so our camera had to be equally suitable for hand-held shooting and the animation sequences. The Arri's reflex viewing made easy work of the critical framing and focusing. We have found that we can do pop-ons, scratch-offs, titling, wipes, straight cell animation and much of our 'budget' animation with our Arriflex 16. We always get excellent picture quality, because Arri's film movement produces perfect registration, and unfailingly, gives us sharp steady pictures."

Mr. Fleming's approach to his film assignment was discerning and resourceful—so too, was his choice of camera. For, whenever a production represents challenging problems, imaginative producers all over the world rely on the versatility and adaptability of the Arriflex.



"MY NAME IS PAUL"—A film depicting the cultures of the people of the Western Hemisphere. Produced and filmed by A-V Corporation of Houston in association with Linda Shuler.
(PHOTO) Cinematographer and tripod mounted Arriflex surrounded by curious bystanders in filming of a South American street scene.

busy, busy ARRIFLEX® at Hemis

These photos appeared in a recent issue of a leading cinematographic publication* that reviewed the film presentations at San Antonio's HemisFair '68.

As different as the films are in subject matter and projection techniques, they have a common denominator. **All were taken with Arriflex cameras.** Some with three or more in multi-camera systems.

We are proud that Arriflex played such an important part in making the outstanding films at HemisFair '68.



"US"—A unique and controversial film produced by the Academy Award winners, Francis Thompson and Alexander Hammid.
(PHOTO) Installation is on a train for a running shot.

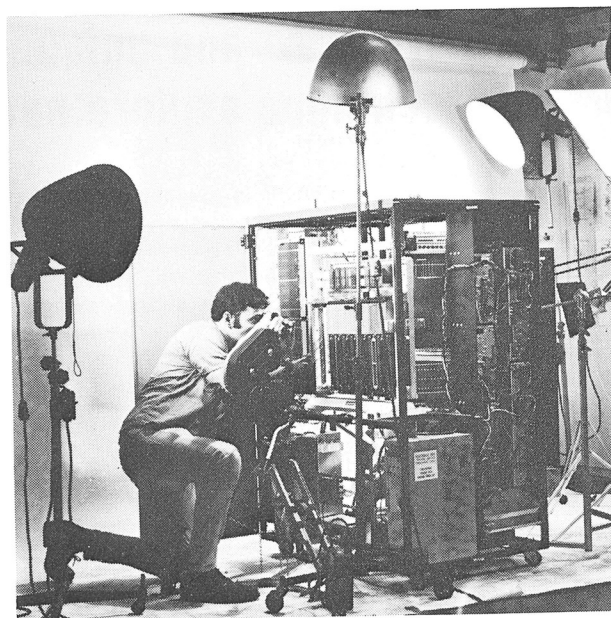
Fair '68[®]



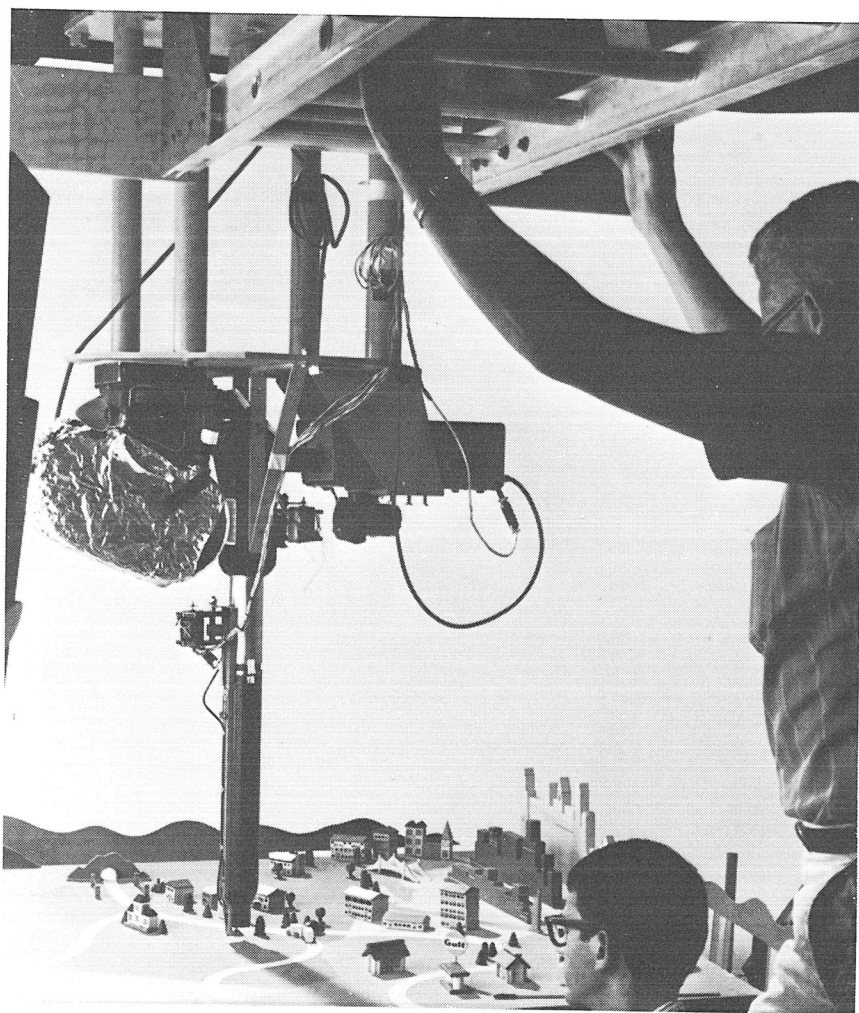
"THE PEOPLE OF TEXAS"—Hundreds of images projected on a multi-faceted dome combine to tell the colorful story of Texas and Texans. Produced by The Office of Gordon Ashby of San Francisco, California.
(PHOTO) Gordon Ashby with his triple Arriflex camera setup awaits precise shooting moment.



"US"—Another use of a triple Arriflex camera rig by Messrs. Thompson and Hammid, mounted on a common base that includes a belt drive so that one motor drives all three cameras synchronously.
(PHOTO) Two separate triple Arriflex camera rigs are setup for filming of a location sequence.



"A COMPUTER GLOSSARY"—A fantastic voyage through the micro-circuitry of a computer. Produced by Charles and Ray Eames with Gene Fleck.
(PHOTO) Cinematographer lines up his Arriflex camera for filming macro close-up of a tiny component of an IBM computer.



ARRIFLEX® and unique Kenworthy-Latady "Snorkel"† technique explore new areas of cinematography

Filming sequences on "locations" so small that neither camera nor eye can enter is just one of the many capabilities of a newly-designed "snorkel" camera system. Invented by cameraman-director Paul Kenworthy* and William Latady, President of Latady Development Co., the snorkel camera technique allows filming in miniature settings and other types of confined areas where no existing camera can operate—with full camera movements. Want to dolly after the rolling dice in a gambling sequence... or follow the ball 360° from the inside of a spinning roulette wheel... or walk down the street of a miniature city from the p.o.v. of a pedestrian scaled to size... or pop into someone's pocket? Now you can. With a fluidly moving viewpoint as low as 1/4 inch off any surface, you can intimately flow over the angles and curves of most any three dimensional subject, be it alive or inanimate—or hover and glide like a miniature helicopter to provide new moving perspectives of people and things. It can even submerge itself into liquids—capture a "soup's eye" view of a spoon.

Heart of the system is a long, tapered optical tube, the snorkel. The snorkel is suspended from a traveling carriage and is equipped with a 16 or 35 Arriflex, and a closed-circuit TV camera for remote viewing of the scene. The vidicon gets its image from 8% of the light delivered by a pellicle in the snorkel.

Camera operation is from a console, where joy-sticks are used to control motor-driven panning, tilting, elevating and focusing mechanisms. The moves now have a floating feeling—a satisfying sensation that differs from dollying off the floor. The scene being filmed is picked up by a tiltable, front surface mirror at the bottom of the snorkel. The image is reflected into the tube, passes through the optics, and is directed to the Arriflex by a second mirror at the top of the snorkel. The Arriflex is inverted to retain proper image orientation.

Either the 16S or the Arriflex 35 can be used; the conversion merely requires exchanging the lower section of optics in the snorkel tube.

Why an Arriflex? "We had enough headaches developing the snorkel rig, we didn't want to worry about the camera," says Mr. Kenworthy. He continues "The Arriflex is good, the choice was as simple as that. Both the 16 and the 35 performed faultlessly." That's why, in the solution of imaginative cinematographic problems, Arriflex cameras are instinctively included in the basic thinking.

*Author of the article in September '67 issue of American Cinematographer

† PAT. PEND.



A PRODUCERS SIGNATURE CORPORATION PHOTO

ARRIFLEXES BY-THE-DOZEN HELP FILM TOURNAMENT OF ROSES PARADE

If you tried to rent an Arriflex in Hollywood on January 2, 1967, chances are, you were out of luck. William E. Brusseau, Director of Productions for Producer's Signature Corporation, got there first . . . cleaning out the four major rental houses in the area to equip 17 camera crews covering the Tournament of Roses Parade in Pasadena.

His assignment: five separate films of the same event, shot by seventeen camera crews, each with its specific areas of coverage pre-assigned. Possibly the largest number of individual camera units ever to work under a single director at one time.

A spectacular subject! Float after float, each covered with tens of thousands of roses and orchids, all in full bloom. A cinematographer's dream.

But . . . shooting conditions that could have

turned the dream to a nightmare! As Brusseau put it: "Because we were following objects that moved at their own pace, and we were unable to anticipate exactly what their movements would be . . . the elements of composition and focus became critical. If either parallax, composition or focus are not perfect, the scene must end up on the cutting room floor. For this reason, the through-the-lens viewing provided by a reflex camera was a 'must'—and that is why we standardized on the Arriflex camera. It proved to be an ideal solution to a problem which, in earlier years, has caused us serious difficulty."

Arriflex . . . the problem solver! Whether you're shooting roses or rockets, missiles or microbes, Arriflex is the camera that will help you do the job better, easier, more profitably. Whatever your next assignment, why not put Arriflex quality to work for you.

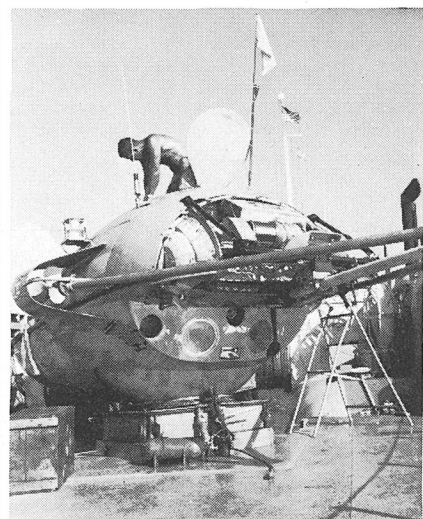
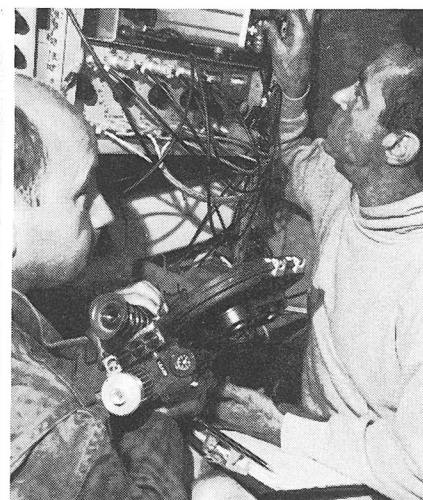
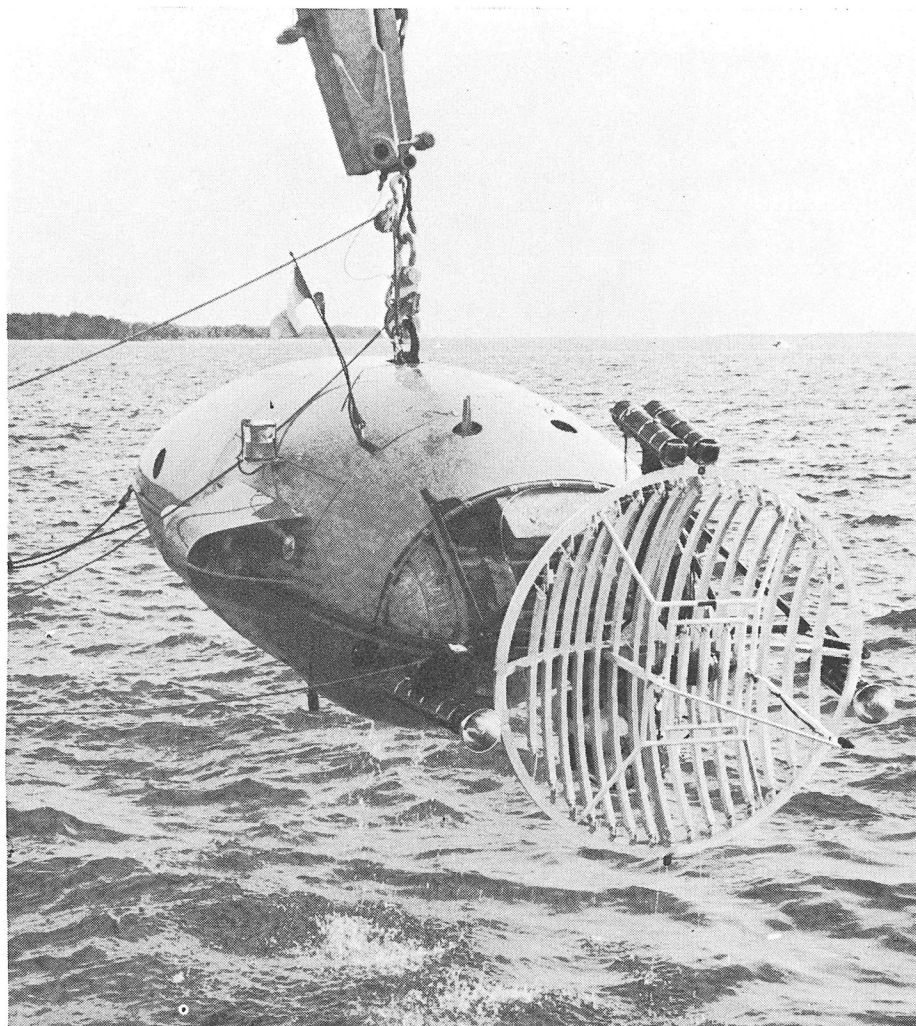
INDUSTRY AND GOVERNMENT

Industrial and government film making have in common their businesslike, no-nonsense approach to the craft. A film is made to do a job. And although the results are often highly creative and marked by a high level of competence, government and industrial productions are typified by tight budgets and limited facilities. In short, there are no frills in this line of work.

It is hardly surprising, therefore, that all the armed forces, every major federal agency, countless state and municipal film makers, and hundreds of businesses, small and large, use Arriflex cameras.

Why do they all choose Arriflex? Because these cameras have all the features required of their type of work. Through-the-lens viewing, of course, registration-pin movement, tremendous choice of lenses, a gear-driven dial tachometer and footage and frame counters, so nothing is left to chance. Arriflex cameras are extremely lightweight and compact—especially important since most of their filming is on location. And these cameras are unmatched for ruggedness and reliability, which is why they are being used in Vietnam, in the Arctic, on the desert, and at sea.

Businesslike film makers demand a businesslike camera Arriflex.



ARRIFLEX® goes down deep in U.S. Navy underwater research program

Deep down—over 3100 feet down—far beyond the depth limitations of conventional submarines, the submersible research vehicle "Deep Star" probes the bottom, gathering oceanographic and oceanological data for research scientists of Navy's Underwater Sound Laboratory.

Built by Westinghouse Electric, and chartered to the Navy, the thick-hulled 6½ foot sphere designed to withstand the fantastic pressures of bottom depth, carries a crew of three: a pilot and two scientific observers. On several of its dives throughout the Gulf of Mexico, off the Grand Bahamas Islands, and along the Continental Shelf from Cape Hatteras to Newfoundland, a different kind of observer joined the crew: cinematographer, Walter Bailey.

Bailey's assignment was to document the recent dive series for a U.S. Navy 16mm Technical Test Report. His cameras were an Arriflex 16M and an Arriflex 16S, loaded with Type 7242 stock.

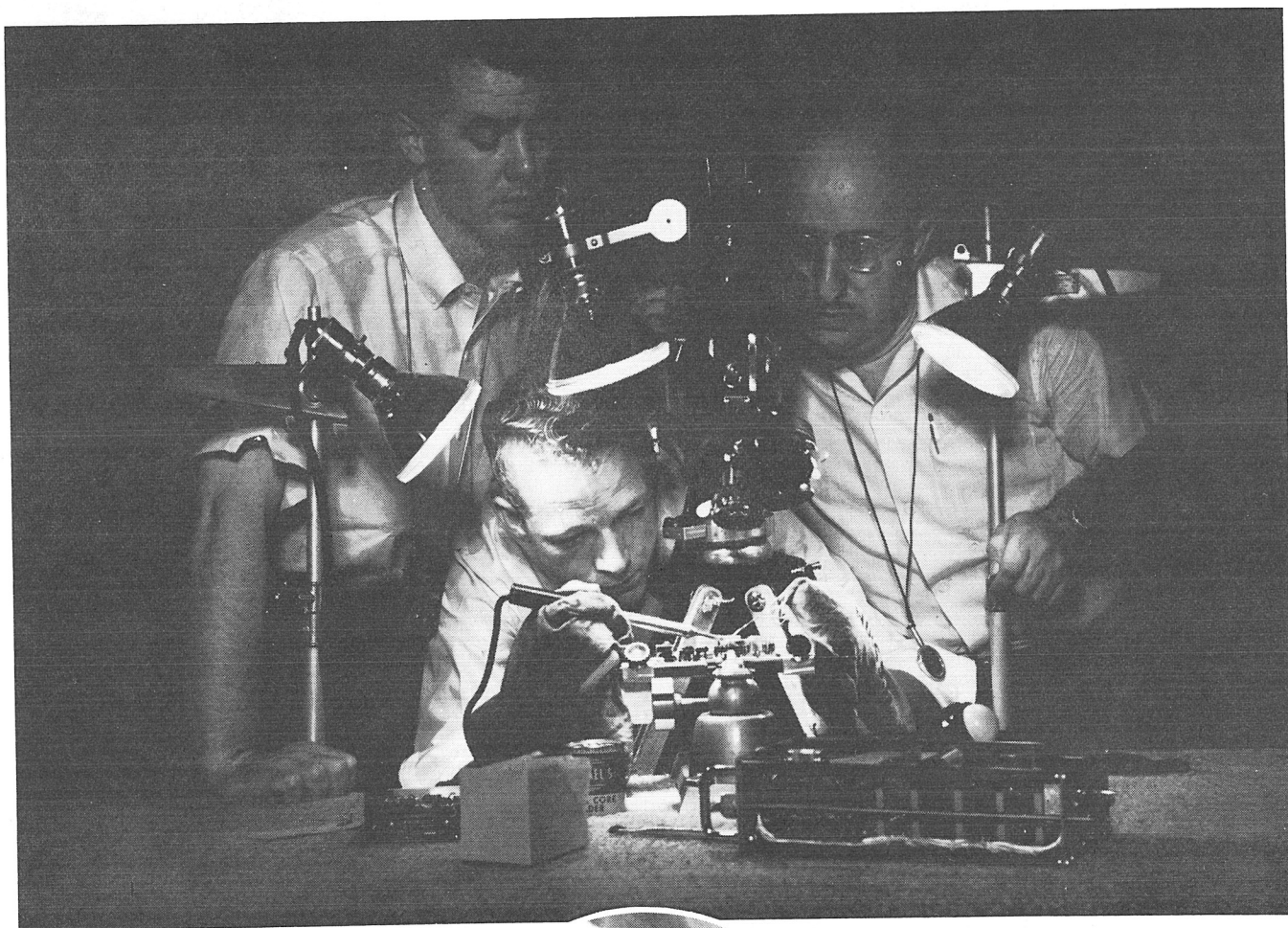
Quarters were cramped...so cramped that the 9.5mm lens was used as 'normal' in order to encompass a reasonable field. And, of the 9,000 feet of total footage, 8,000 had to be shot hand-held—no problem with the compact, lightweight Arriflex.

At the surface, when the 200 ft. magazines were loaded, temperature was 88°, and humidity 80%. At a depth of 3105 ft., fifteen feet off the bottom, cabin temperature read 60°, and humidity 67%. On return to the surface, temperature climbed to 81°, and the humidity to a dripping 93%.

Bailey filmed the entire operation: diving, hovering and re-surfacing. The footage would have been hard to replace, and he worried: "Would film travel smoothly through the gate of the camera under such widely diverse conditions of temperature, humidity, and pressure?"

It did. "It ran through perfectly," Bailey reports. Not only in deep dives, but on the surface, on the vehicle's tender—everywhere, Arriflex functioned without flaw.

Arriflex dependability goes down deep! When the circumstances of your assignment stack the odds against you, Arriflex's advanced engineering, and time-tested reliability put them back in your favor. Try one on your next assignment and see.



Extreme close-ups of tiny soldering operations put startling dramatic punch into the instructional film, "On Solder," which demonstrates proper soldering techniques in a way never before depicted on the screen. Produced by Scope Film Associates, the film has won the American Film Festival "Blue Ribbon" Award, the Industry Film Producers Association "Cindy" Award and the Chris

Award. Shown above are (left to right): producer-director Ron Hagerthy; electronics technician Chuck Meier; and cameraman Joseph V. Mascelli, editor of the American Cinematographer Manual. Shooting exclusively with an Arriflex 16, Mascelli

ARRIFLEX® gets the prizewinning macro action!

achieved many original and exciting effects **in the camera**... without any lab-made opticals

...including full-screen macro-zoom scenes of a **single drop** of molten solder and flux flowing like a giant river of lava! You can do that with an Arriflex. Place any combination of optics on

the lens mount and **see** the effect as you film.

No guesswork or special calculation...because the Arriflex

mirror-reflex viewing system eliminates problems of parallax and depth-of-field. Focus and framing are precisely controlled even when the scene is only a half-inch wide. Arriflex...a time-saving, money-saving professional production camera!



ARRIFLEX[®] records a blow-out for Firestone Tire & Rubber Co.

Filming the effects of a dynamite-cap explosion inside a tire traveling at 55 miles per hour was the unusual assignment given the Arriflex 16 motion picture camera. The blowout was staged by Firestone engineers exploring ideas for motorists' safety, in the development of a special test safety tire. The Arriflex, powered by a dry cell battery mounted on a specially-designed wooden frame bolted to the car chassis, was focused on the loaded tire. Set on continuous-run at 24 frames per second, Arriflex maintained perfect image registration despite the car's traveling at high

speed and the shattering effect of the driver-controlled tire blast. Recorded on film — and in closeup — was the precise effect on the tire as it blew, and the manner in which the inner safety tire permitted the driver to bring the car to a safe stop without sudden swerves. Once again, the rugged, compact and extremely lightweight Arriflex has served scientific inquiry. In studio or on location, hand-held, on tripod or bolted to a blast-shocked platform, you can rely upon the dependable Arriflex to execute your assignments without a hitch.

Victor Duncan chose the ARRIFLEX 16BL to avoid 'bugs' in filming for Volkswagen.

In ordering their 1969 Announcement Film to be produced by the Kerbawy Company, Detroit, Volkswagen had provided Director of Photography, Victor Duncan, with requirements that were almost contradictory.

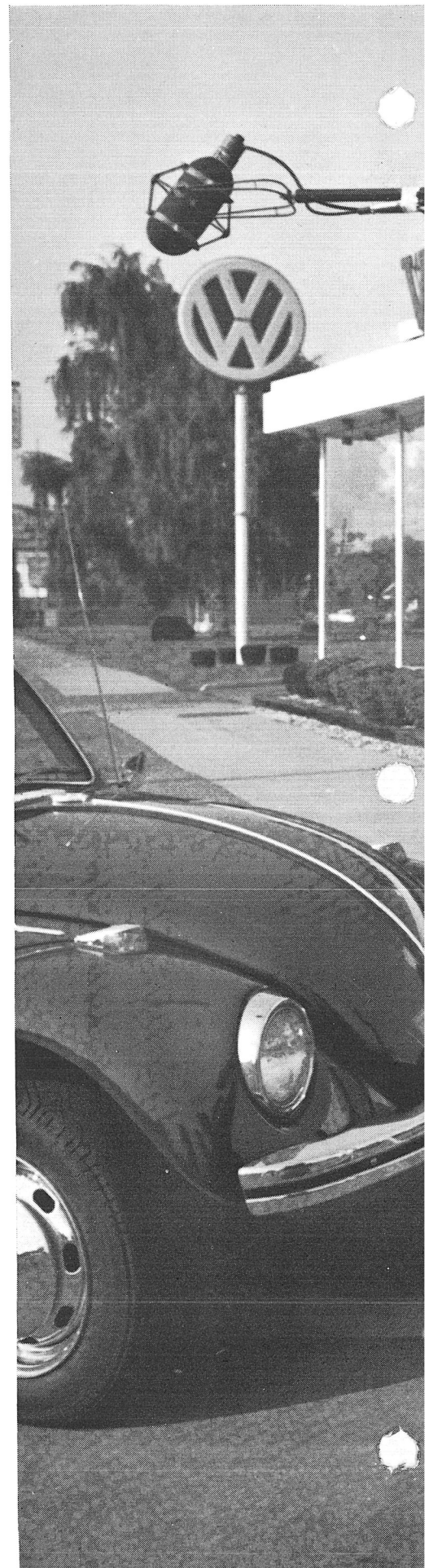
Intended for large audiences in seven cities, the 45 minute lip-sync photoplay was to be projected on 22 foot screens. Ordinarily a job for 35mm...but the shooting schedule was tight, and involved travel to numerous Volkswagen dealers from California to Connecticut. "Choice of equipment was of special concern," writes Mr. Duncan, "not only because of the needle-sharp requirements of large screen projection, but also due to the fast moving, travel-light nature of the job." 16mm fulfilled the latter requirements—and Arriflex was used to ensure the all-important technical quality.

Choosing an Arriflex 16BL as his 'universal' camera for all sound work, and a 16S for wild shots and cutaways, Mr. Duncan headed for the many location challenges that awaited him. As he describes it, "it was an on-and-off the airplane routine, with short schedules at every stop. It was exciting as a technical and logistical problem. How many magazines, for example, do you carry? The BL's magazines being compact as they are, we were able to pre-load more than enough without overloading ourselves, but this is the kind of thing you've got to consider.

There were acoustical problems too—after spending six easy-going days with the 16BL on the sound stage, we found out just how miserable an automobile showroom—with its wide open, echoing spaces—can be for sound recording. And without many objects to hide lights behind, we often had to rely on available light, or relatively low levels of artificial light. Without much depth-of-field, we constantly had to ride the focus, and often from a camera position too cramped for an assistant. If it hadn't been for the brilliance of the Arri's viewfinder, and focusing grips I could really get my hands on, I'm not sure what we'd have gotten on those 22 foot screens."

When not mastering filming problems like these, Mr. Duncan runs a lively equipment rental business. An enviable position for a cameraman—it not only keeps the most extensive resources at hand it also gives him an 'inside' knowledge of their performance.

Not only Mr. Duncan, but filmmakers all over the world who really know equipment, choose Arriflex.



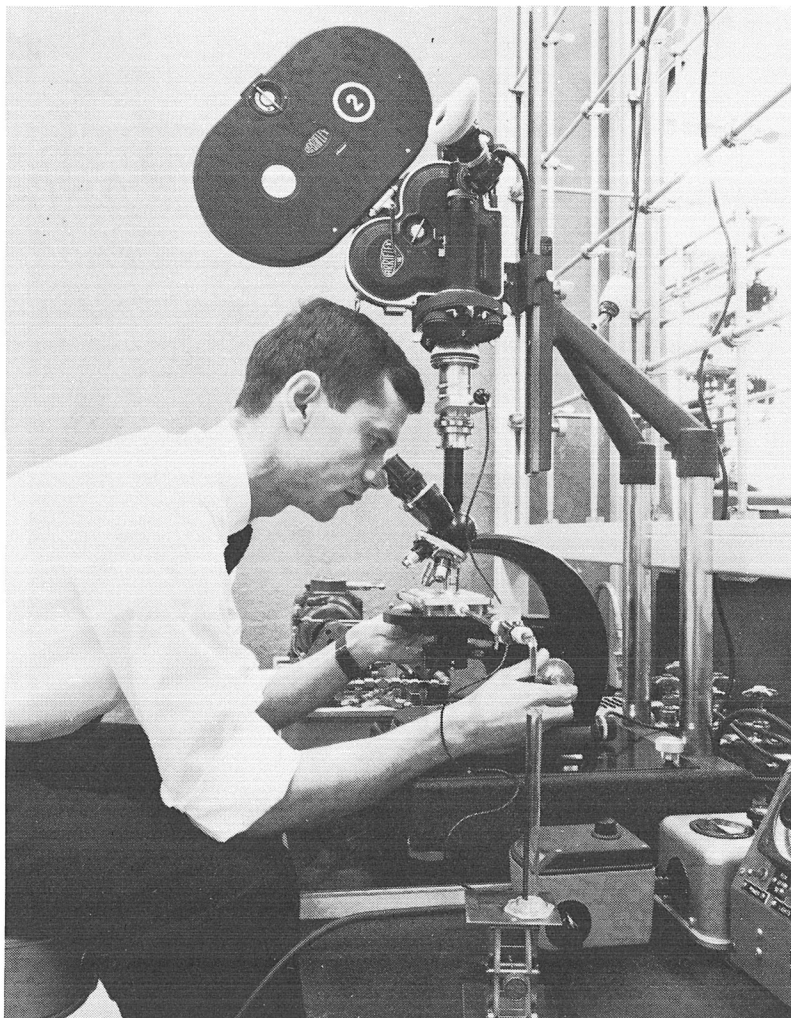


Gil Sorensen

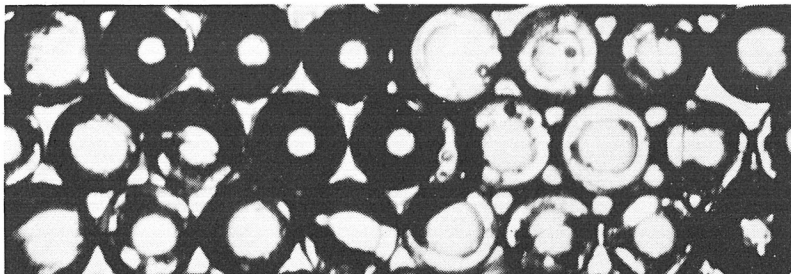
Gerald Plumb

Victor Duncan

William Hevron



Dr. Mungan of Sinclair Research Inc. studies a micromodel of porous reservoir rock.



Microphotograph of a section of glass bead packed model used in fluid movement studies.

ARRIFLEX[®] explores oil recovery techniques at SINCLAIR RESEARCH Inc.

Despite man's extensive knowledge of the earth, only one exploratory oil well in thirty is commercially successful... yet the precious fluid is there, trapped in the ground, awaiting release. Improving upon present oil producing methods is a key project for Sinclair Research Inc. at its new 28-acre Tulsa, Oklahoma, research center. And a key implement in current experiments is the Arriflex 16, working with Sinclair scientists and engineers on new oil recovery techniques.

"Existing production methods recover less than half the oil in petroleum reservoirs," Sinclair scientists revealed. "For oil to be produced it must move through myriads of tiny, interconnected rock pores, ranging from less than 1/1000th of an inch to several hundredths of an inch in diameter, and travel torturous paths to a well bore. Much of the oil, clinging to rock grains, is not produced by present recovery techniques."

How are techniques explored? Sinclair researchers rely on microcinematography, utilizing the Arriflex 16 to record fluid movement through glass bead models that simulate porous reservoir rock. The films are used to study the efficiency of diverse fluids that might displace oil in a porous system, and to evaluate various chemical additives, tested to reduce oil-cling to rock.

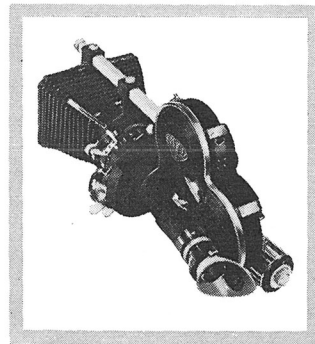
At Sinclair Research Inc. the Arriflex adapts to many experiments in petroleum engineering, geology, geophysics and the related sciences, all working toward greater oil productivity and the conservation of natural oil resources.

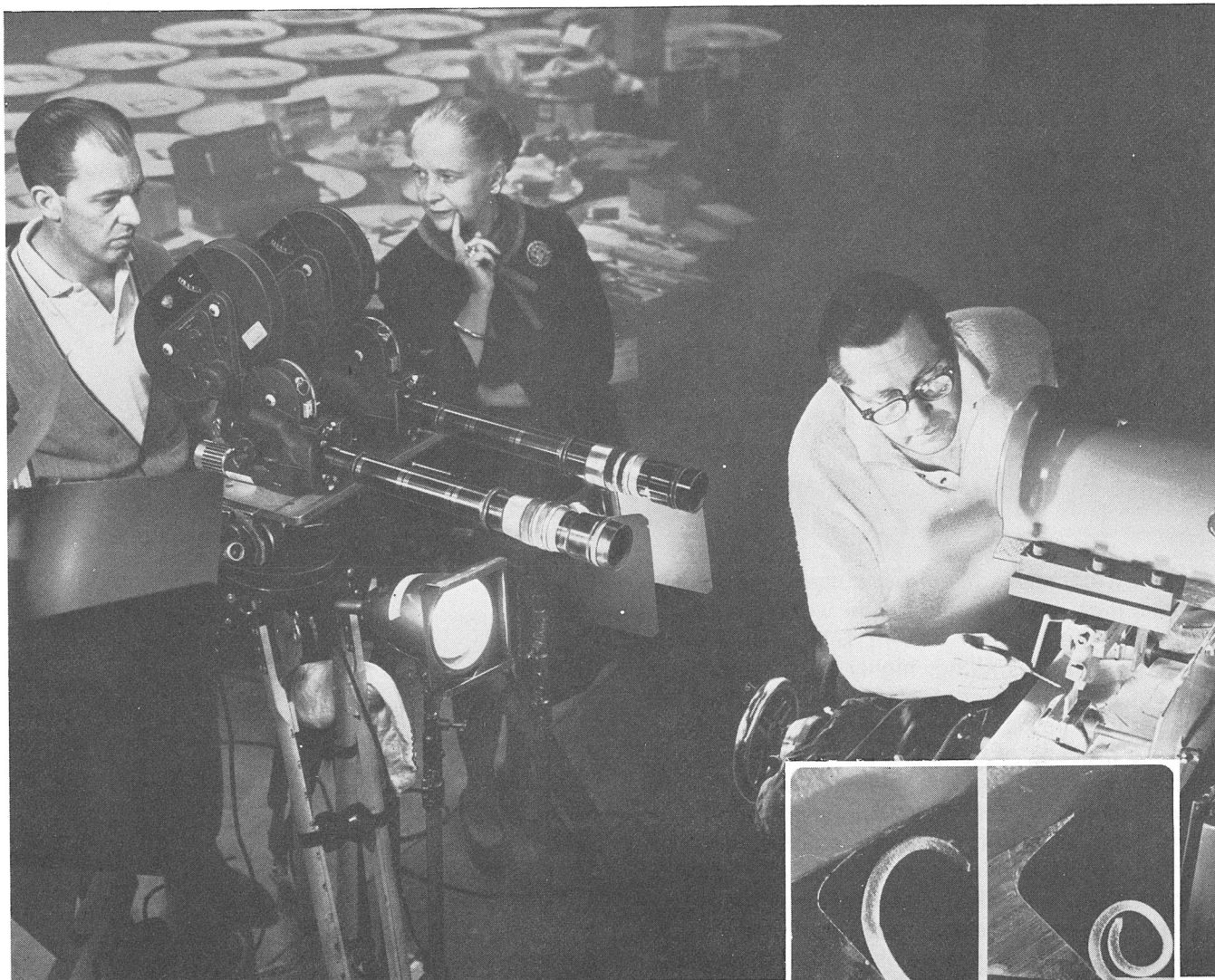
In laboratory or in the field... in all areas of research where cinematography serves scientific study, you're sure to find an Arriflex. Discover it for yourself.



From the microscope to the missile range... from spot locations to sound stages... Arriflex professional motion picture cameras are the dominant choice of filmmakers in science, industry, and entertainment. They're lightweight, rugged, tremendously versatile—uniquely suited to a range of applications virtually without limits. Here are some of the features that give Arriflex cameras their remarkable capabilities:

- MIRROR-SHUTTER REFLEX VIEWFINDER ● REGISTRATION-PIN FILM MOVEMENT ● 21°-DIVERGENCE 3-LENS TURRET ● CONTOUR HAND GRIP ● FRAMES-PER-SECOND TACHOMETER ● COMPLETE ACCESSORY SYSTEM... lenses, standard and special-purpose electric drives, power supplies, time-lapse equipment, film magazines, sound blimps, tripods.





COMPOSITE FRAME: ▶
Left—Dry Cut; Right—Fluid Cut

TWIN ARRIFLEX'S PROBE METAL WORKING "MIRACLE AT POINT OF CUT"

Extremely sharp, close-up photography of minute chip-forming differences was the basic consideration in filming "Miracle At Point of Cut", a 28-minute 16mm color-sound motion picture for Master Chemical Corporation, Perrysburg, Ohio. The film, produced by Focus Unlimited, Inc., Maumee, Ohio and carries an introduction by Lowell Thomas. It deals in a direct, informative way with the phenomena of dry vs applied fluid machining of nine different space-age metal alloys.

This unique research project was accomplished with twin, interlocked Arriflex 16 cameras equipped with extension tubes and Macro Kilar lenses. Each camera (framed left or right) pho-

tographed a single cutting operation, covering an area approximately $\frac{1}{4}$ " square, actual size. Both camera rolls were subsequently "matte" printed side-by-side for analysis. Tool positions and horizontal work material had to match.

"Thanks to the Arriflex's mirror-shutter reflex system and precise pin-registration movement, they did," said cinematographer Robert Deming. He concluded, "The reliability and ready adaptability of Arriflex equipment greatly aided an initially complex problem."

Why not put Arriflex's extraordinary problem-solving capability to work for you on your next production?

DOCUMENTARIES, TELEVISION, SPORTS

When it comes to filming documentaries, news, personalities, and sports, all the world's a sound stage and the word is Action! Telling it like it is demands a fast-handling, highly portable camera that delivers top-notch footage for today's color broadcasts. And it calls for a camera that can take it.

In the process of getting a story on film, documentary and news cameramen have historically shown little mercy for their equipment. When filming a flood or a riot, the cameraman cannot be overly protective of his camera. That's why so many of them use an Arriflex. The Arriflex is the documentary camera 'par excellence'. Toughness, durability, and ruggedness are designed in. But unlike most 'news cameras', the Arriflex has the operating precision comparable to that of a studio camera.

And that's one of the reasons why it's also the first choice of sports photographers. They know that the camera will operate under the worst of conditions, from tropical heat to arctic cold. That's why Arriflex is equally at home on safari, and on the slopes of Mt. Everest.

In recent years, Arriflex has replaced studio cameras for use in filming many television adventure shows. The great portability of Arriflex equipment, its high level of performance, and its modest cost have resulted in significant savings in producing such programs. The age of electronic media is here and Arriflex is playing a vital part in it.



ARRIFLEX AT ANTARCTICA: UNLOCKING SECRETS OF 'THE LAST FRONTIER' WITH U.S. NAVY'S OPERATION DEEP FREEZE

Antarctica's every specification is extreme: a 5½ million square mile area — the size of the United States and Mexico combined — more than 95% covered by 7 million cubic miles of ice . . . temperatures as low as -126.9° . . . wind velocities in excess of 100 MPH . . . and a climate drier than Arizona's, forming the world's coldest, largest desert. Here, under United States auspices, some 250 men spend the year and nearly 2,000 more arrive for the Antarctic summer — scientists and the men of Navy Task Force 43, who, together form the massive project called Operation Deep Freeze.

If there is any gauge to the importance of this work, it is the expense and perils accepted by the U.S. Navy in providing for the scientific community in this most hostile part of the world. For the sailors, the pilots and the drivers of the vehicles involved, this is a logistical operation that rivals history's most challenging military accomplishments.

Recording and documenting every phase of Operation Deep Freeze and the men of Task Force 43 are

three Arriflex cameras. Like most materiel employed in this jarring subfreezing environment, the Arriflexes are "off the shelf" products whose only modifications are a change of standard lubricants to low temperature lubrication and the use of an asbestos battery cable instead of the standard rubber cable which would crack in Antarctic temperatures.

Why did Arriflexes perform so superbly? Because the film transport mechanism including registration pin is cam driven — no springs are ever used. Because only the most expensive metal alloys with the optimum temperature coefficient are selected and in addition are secured by temperature compensating precision bearings. The mirror reflex shutter too, is made of special temperature proof optical glass and thus maintains flawless focus.

That these cameras execute their assignments without incident, thousands of miles from service facilities becomes the ultimate proof that, even in the world's worst climate, Arriflex reliability is a factor that can be counted on.



Filming on location in Athens with the ultra compact Arri 35 2C cameras and ultra portable ColorTran fill lights.

GLOBE-TROTTING **ARRIFLEX®** AND UNIQUE ELECTRONICS SOLVE LOCATION PROBLEMS FOR NBC'S "I SPY" TV SERIES

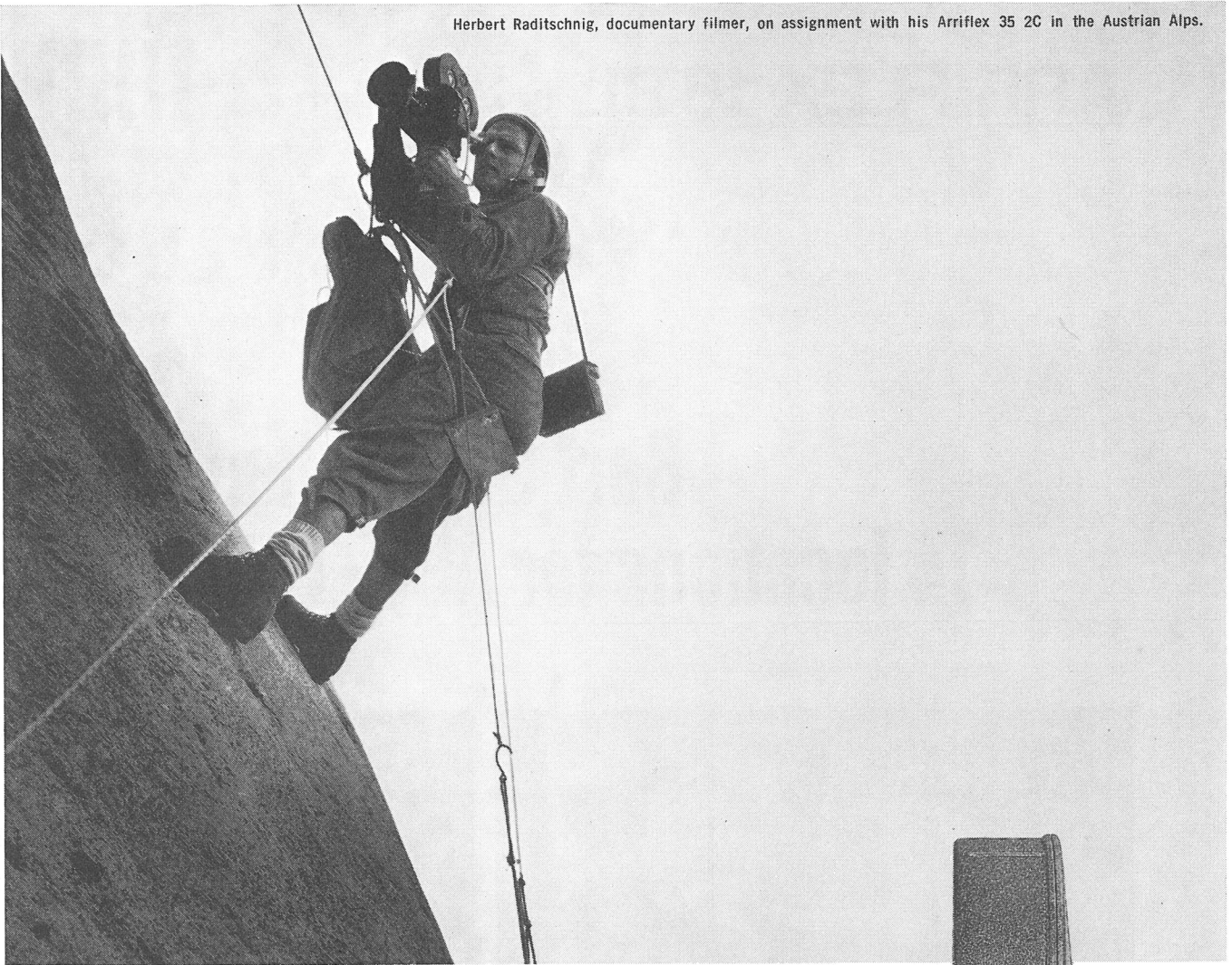
The normal shooting conditions for this fast-paced weekly color series, created and directed by Mr. Sheldon Leonard, could reduce many a cameraman to a nervous wreck. "Each episode is filmed in a different country," writes Foreign Location Director of Photography, Mr. Fouad Said, "and if the script calls for a sequence in a mobbed marketplace in Hong Kong or Mexico City, we've got to have the whole set-up there, in the scene. Since authenticity is requisite in this series, we certainly couldn't have masses of cameras and cables drawing attention. Our dilemma was: how in the world can we shoot double-system sound, without destroying the natural feel of the setting?"

For quality sync-sound, without the encumbrance of cables and connectors, Mr. Said's crew developed an arsenal of electronic gadgets humorously akin to the spy-gear used in the series itself. A sync-pulse is radio-transmitted from the camera to the 1/4" tape recorder, several blocks away. Tiny wireless mikes are concealed in the actors' costumes. Special motors, operated by the cameraman from his position behind the camera, control zoom, focus and aperture. Cameraman and soundman work in perfect sync, each with full control over his own function and apparatus, but with no physical link be-

tween camera and recorder. For fast action and camera mobility, for high picture quality without disrupting the natural spontaneity and authenticity of the local scene, Mr. Said chose Arriflex 35 2C cameras. No less than six Arriflex cameras are included in his completely equipped 'only one of its kind' mobile truck that can be flown to any location in the world within 24 hours. Mr. Said explained, "I chose the Arriflex as our basic camera for its mobility and lightness. With four or five major changes of locale in each shooting day, it is necessary to use very portable equipment that can be rapidly set up on top of a truck, a building or a cliff, if need be—or that can be hand-held in any situation. Furthermore, because of communication difficulties involved in working with foreign technicians, it is mandatory to use a camera that requires a small crew, and is universally known. Power is another consideration, since we're dependent upon varying line voltages in different countries. We use a 110V inverter, the smallest in the world. Most cameras could not be operated with such a light power plant."

Mr. Said's choice of camera reflects the show's international flavor. For wherever in the world you find skilled, demanding filmmakers doing their best, invariably you'll find an Arriflex at work.

Herbert Raditschnig, documentary filmer, on assignment with his Arriflex 35 2C in the Austrian Alps.



ARRIFLEX® scales the Alps, Andes and Himalayas with Austrian cameraman-mountaineer

When Austria is your native locale, mountain-climbing is a likely pursuit. So is photography, with all the magnificence of the Alps at your doorstep.

Become expert at both, do them in unison, combine them into a single career, and you're a rarity — one of the world's few professional cinematographers completely at home on the treacherous terrain of a perpendicular mountain wall.

Such a man is 30 year old Herbert Raditschnig of Salzburg, Austria, whose cinema, documentary and television film assignments have taken him from the Alps to the South American Andes, to the hazardous Himalayas of India and Tibet. Raditschnig's constant companion on these assignments is an Arriflex.

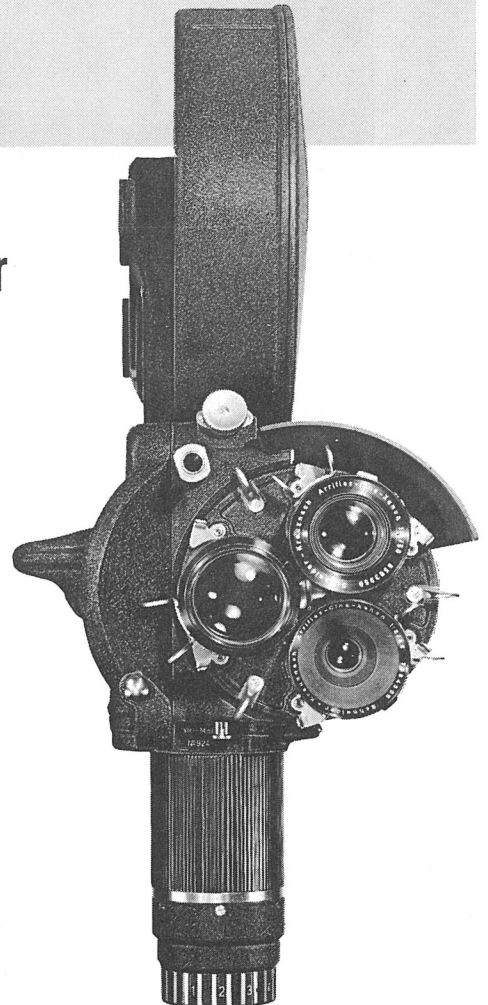
"On some jobs I use a 16mm camera; on others, a 35mm," Raditschnig relates, "But always an Arriflex. Its ruggedness when packed in a rucksack, its light weight portability and its absolute reliability are tremendous assets on mountain-climbing expeditions. The precise viewer system, the 3 lens divergent turret and the quick change of magazines are advantages that no other camera offers. They facilitate the fast shooting required when you're on precarious footing."

Raditschnig has just returned from a five-month television film expedition in India and Nepal with the Tibet explorer, Heinrich Harrer. Cameraman and camera were exposed to complete contrasts in climate and location.

"First I had to shoot rhinoceros in the sultry jungles of South Nepal, then film a raging snow storm at an elevation of 18,000 feet in the bitter cold Himalayas," Raditschnig said. "Even without a change of lubrication, the Arriflex needed no coaxing; its performance was perfect in both extremes of temperature and shooting conditions."

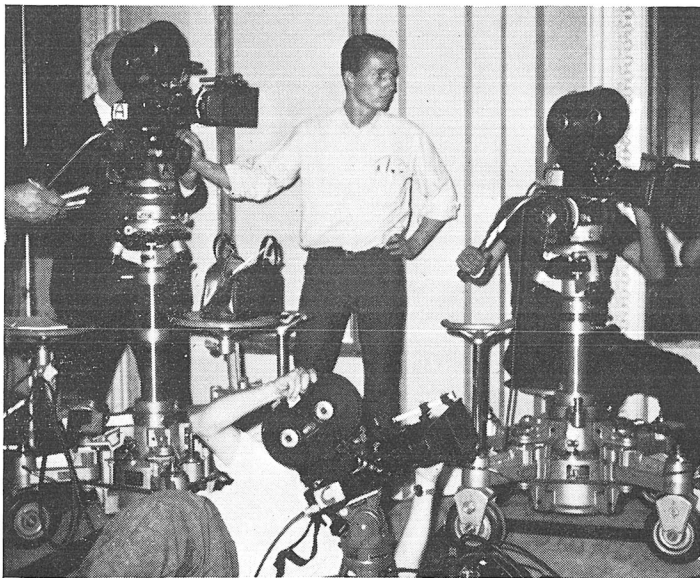
"Another time on an Alpine assignment, my mountain climbing assistant slipped, hurtling down the slope. I could hold him only by having the rope travel over the camera, steadying myself until I could pull him back. The mishap left his mark on the man — but not on the Arriflex!"

How rugged, reliable and responsive can a motion picture camera be? You'll never know until you use an Arriflex.

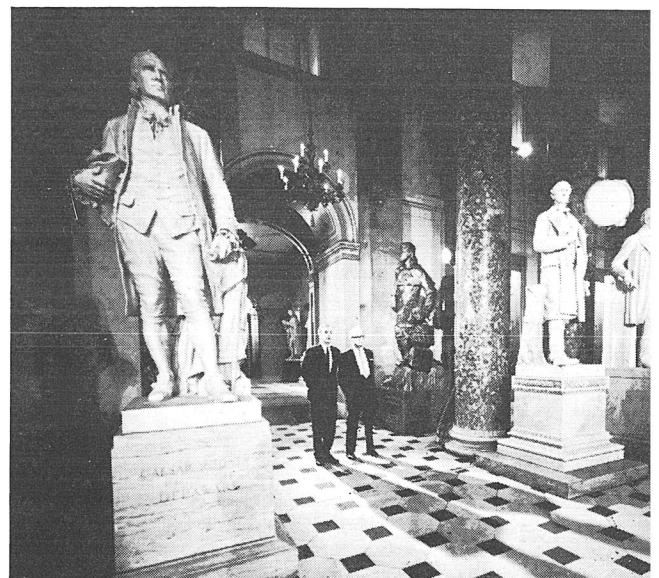


ARRIFLEX® 16 BL on location : **filming**

Bert Gerard had 7½ hours 14 locations for ABC-TV's hour long



Three Arriflex 16BL cameras filming Senator Dirksen and Howard K. Smith at the House Chamber Corridor. In center: Camera assistant Fred Schuler.



Senator Dirksen and ABC News Commentator Howard K. Smith entering the Statuary Hall during the filming.

Director of Photography Edmund Bert Gerard, IATSE New York Local 644, thrives on "impossible" assignments. Which is why ABC-TV asked him to film — in one day — a documentary film tour of the Nation's Capitol. Senator Everett Dirksen was to be host, and newsman Howard K. Smith the commentator.

The Illinois Senator had informed ABC that he could devote just one day to the project. With interruptions for Senate roll calls and votes, the "day" was actually 7½ hours. And to make an already difficult situation nightmarish, Capitol rules and restrictions severely limited set up times, and strictly controlled shooting schedules and locations. Given this situation, there would be no rehearsals, no retakes, no second chances!

Producer James Benjamin's research and preliminary walkthroughs had produced a 22-page

shooting script that called for filming the Senator in 14 locations. In view of the time limit, Benjamin and Gerard decided that the production could only be done by shooting it as if it were a live telecast.

"The logistics problems were unbelievable," Gerard explained. "Since we would have no time to reposition the lights, we practically had to light up all the interior locations beforehand. Our 21 electricians had to handle 10,000 feet of cable and position over 320 ColorTran lights."

For his cameras, Bert Gerard selected three Arriflex 16BL's.

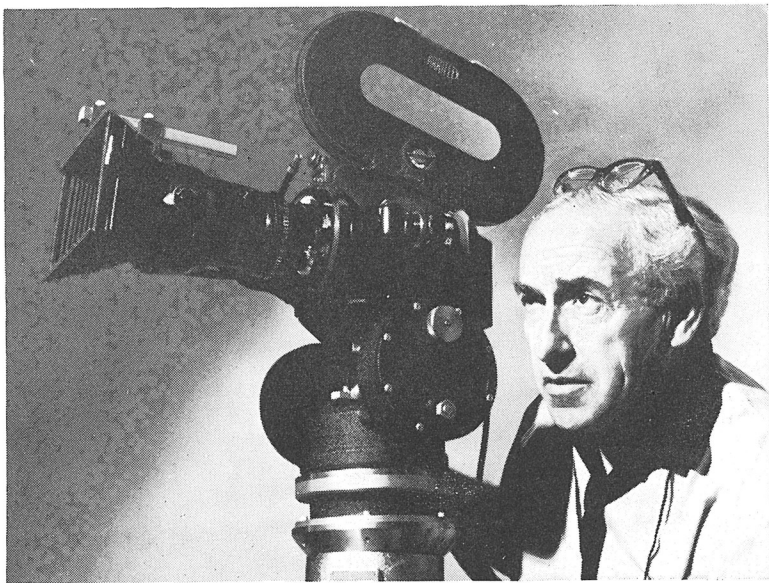
"I had to have the best 16mm equipment available. The cameras had to be quiet, fast handling and reliable. Reliability was especially important since we were running the 16BL's in sync and could not afford any jams."

"Everett Dirksen's Washington"

to shoot a 22-page script in
documentary. Filmed in 16mm color.



Senator Dirksen at the Will Rogers statue.



Cinematographer Bert Gerard

Two of the BL's were fitted with 12mm-120mm Angenieux zooms; the third had the 9.5mm-95mm Angenieux.

"With this setup, we used the wide angle for establishing shots and coverage of Statuary Hall. All three cameras were positioned to ensure that we were covering the Senator no matter where he walked or how he turned."

Gerard staggered camera runs to avoid simultaneous run-outs. "We timed camera operation to allow for 30-second magazine changes. The Arriflex quick-change system is ideal for this of work. Magazine changes are fast. But more important, the magazine system is absolutely safe. We didn't tear a single sprocket or chew up a frame of film."

Edmund Bert Gerard eagerly tackles the most difficult assignments. But he's not one to take

chances on anything less than proven equipment.

"I must have the best. My reputation is on the line every time I do a job. It's that way for any professional cinematographer."

Gerard has been using Arriflex cameras for as long as they have been available in the United States.

"The reason is simple, they're cameras I don't have to worry about."

Why don't you try an Arriflex 16BL on your next 16mm sync-sound assignment. It's good for your nerves.



Director of photography Dave Marx with 800m lens fitted to his Arriflex 16M, shoots double-system wireless recording of coach and quarterback.

ARRIFLEX® 16's score in fast moving NFL-AFL TV FILMS

You might think that it's a simple job for a cameraman to keep on target—true—unless the job of the "target" is to deceive and evade. And that's the job of the football pro, subject matter of NFL-AFL Films, Inc. in shooting their TV series, "NFL Game of the Week", "AFL Highlights", and "This Week in the NFL". NFL-AFL's cameras must do more than merely keep the elusive football in-frame. Their business is to give their audiences a view of the game they could never see from the stands... to put them in the middle of the action, to be almost as much part of the drama and excitement of football as the players themselves.

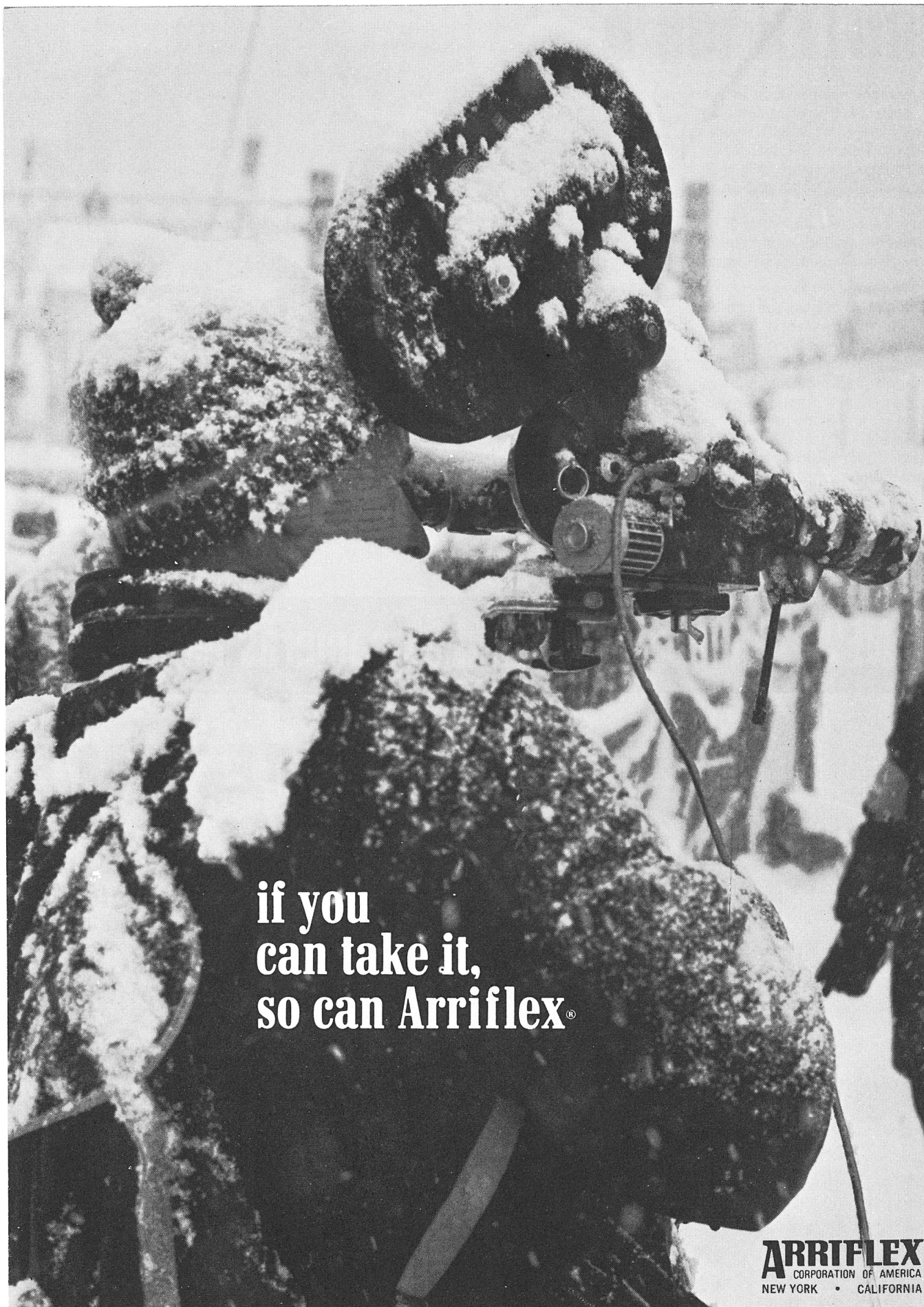
NFL-AFL's technique has been developed into as much of a "science" as the spontaneous, ever-changing nature of the game allows. The "main" camera covers all action from an elevation above the fifty-yard line, assuring that every play is recorded. In addition, a second camera is often employed at the same position for "isolated coverage", concentrating upon a particular player or players. But the real in-the-thick-of-it footage comes from the "mole"—the cameraman down on the ground, shooting as close to the line of scrimmage as possible. It's his job to stay right on top of the action. He needs not only a "sixth sense" predicting the player's moves, but some fancy footwork to keep up with them—or out of their way as well.

This requirement for mobility, plus the need to reload in a hurry, plus the film company's schedule of some 200 games annually in different parts of the country, calls for the capabilities of the quick-handling, portable Arriflex.

Arriflex 16S and 16M's are often cranked away at 48 fps so that the audience, if not the cameraman, can enjoy an easier-to-follow version of the action. Fitted with zoom lenses and telephotos for super close-ups, the Arriflexes keep the "moles" mobile, able to cover tight action from the best vantage point. The aid of an assistant cannot be counted on in this kind of shooting, and that's another asset of the Arriflex; with all controls, including precise tachometer, easily under the command of a single operator, each crew can be limited to one man without sacrifice to the finished film.

NFL-AFL's president, Ed Sabol, sums up the challenge most clearly. "We don't have the luxury of retakes in this business. We have to get it the first time or not at all. We only get one chance. No more. That's the only way we can get the validity our pictures must have".

In short, the requirements that typically bring Arriflex into the game.



if you
can take it,
so can Arriflex®

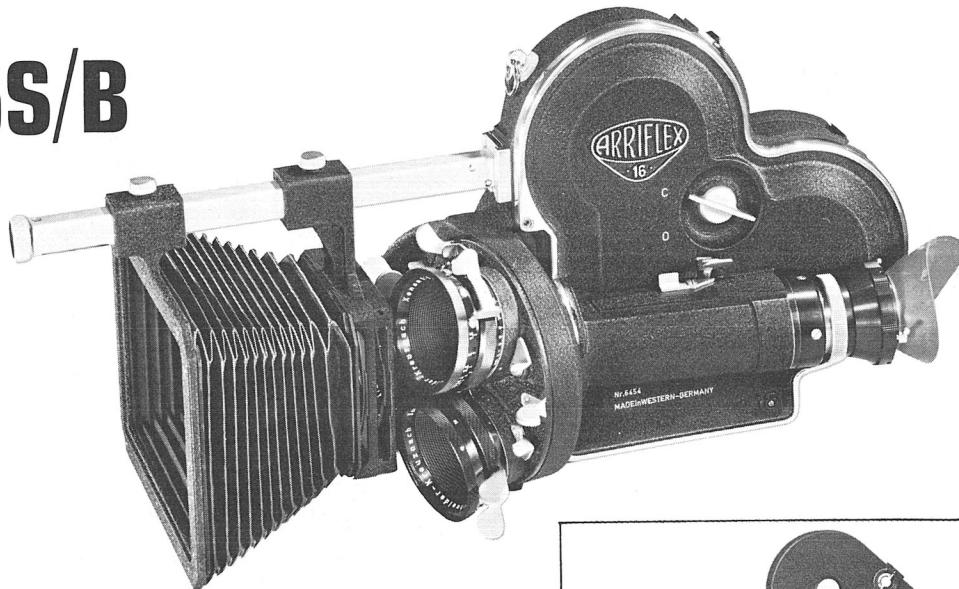
ARRIFLEX
CORPORATION OF AMERICA
NEW YORK • CALIFORNIA

Photographed at the Winter Olympics, 1968 — by Cinepress, Grenoble, France

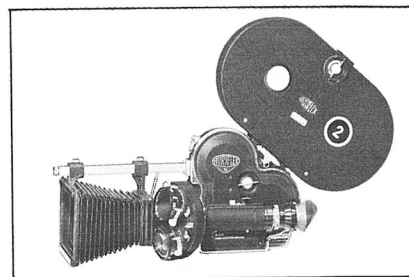
ARRIFLEX® 16S/B

No other camera comes close to the handling ease of the ultra-compact and lightweight Arriflex 16S/B. Ready-to-film camera weighs just over 8 lbs. with 100 ft. daylight spool, 3 lenses, motor and matte box! Hand-held or on tripod, in the studio or on location, its ruggedness, capability and versatility, as a thoroughly professional filming tool, has made the model 16S/B world famous.

The Arriflex 16S/B is a unique combination of the most essential professional features: famed Arri mirror-shutter reflex viewfinder; ultra-precise registration-pin film movement; three lens divergent turret; frames-per-second tachometer and many others, plus a complete system of accessories. Film capacity from 100' internal spools to 400' external magazines.



Write for
ARRIFLEX 16S/B
16 page brochure



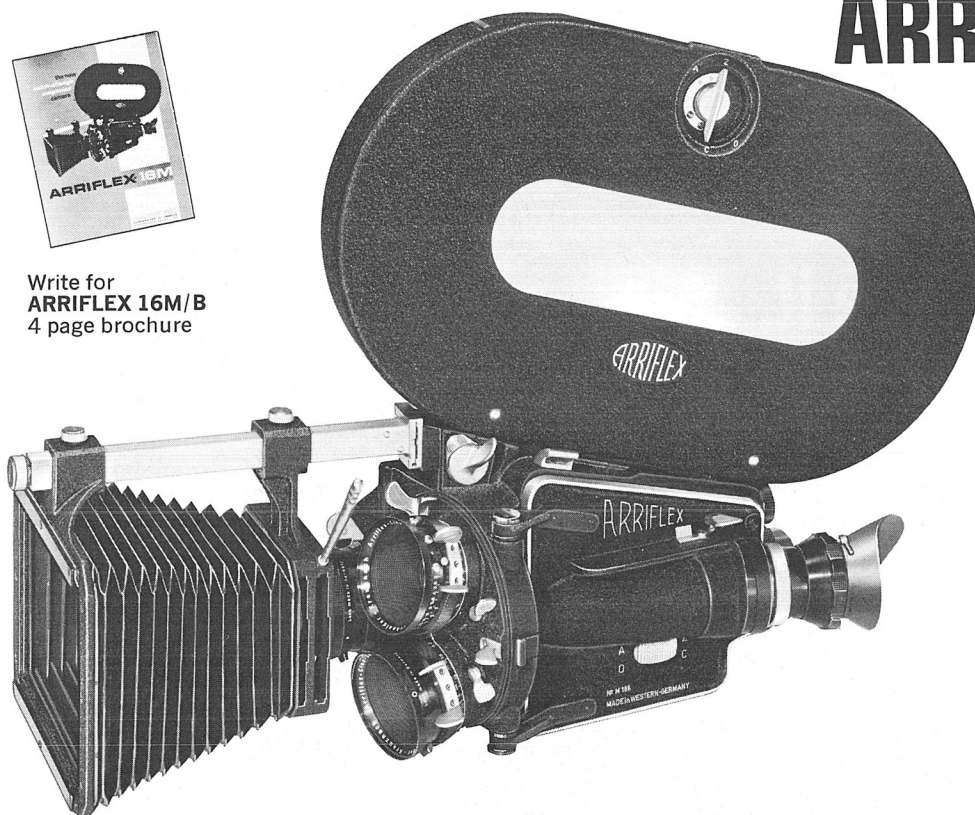
Inset shows Arriflex 16S/B with S-400' magazine, matte box, lenses and motor.

NEW! All Arriflex 16 and 35 cameras feature the new

ARRIFLEX® 16M/B

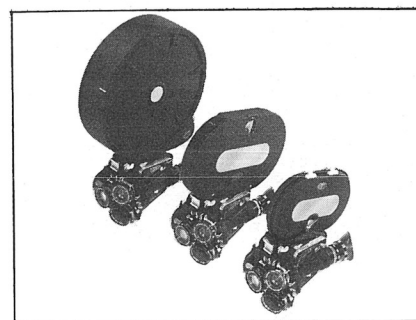


Write for
ARRIFLEX 16M/B
4 page brochure



One camera, choice of **three** Quick-Change magazines, makes the 16M/B ideal for the tough, long run jobs, the hand-held grab shots and anything in-between. Standard equipment includes a 60-cycle signal generator and automatic clappstick for location sound filming. Its broad capabilities are practically unlimited.

The Arriflex 16M/B features three Quick-Change magazines (M-200', M-400' and M-1200'); and shares with the famed model 16S: Arri mirror-shutter brilliant reflex finder; ultra precision registration-pin movement; three lens divergent turret; tachometer; frame-and-footage counter and a complete system of professional accessories.



Inset shows the Arriflex 16M/B with M-1200', M-400' and M-200' magazines.

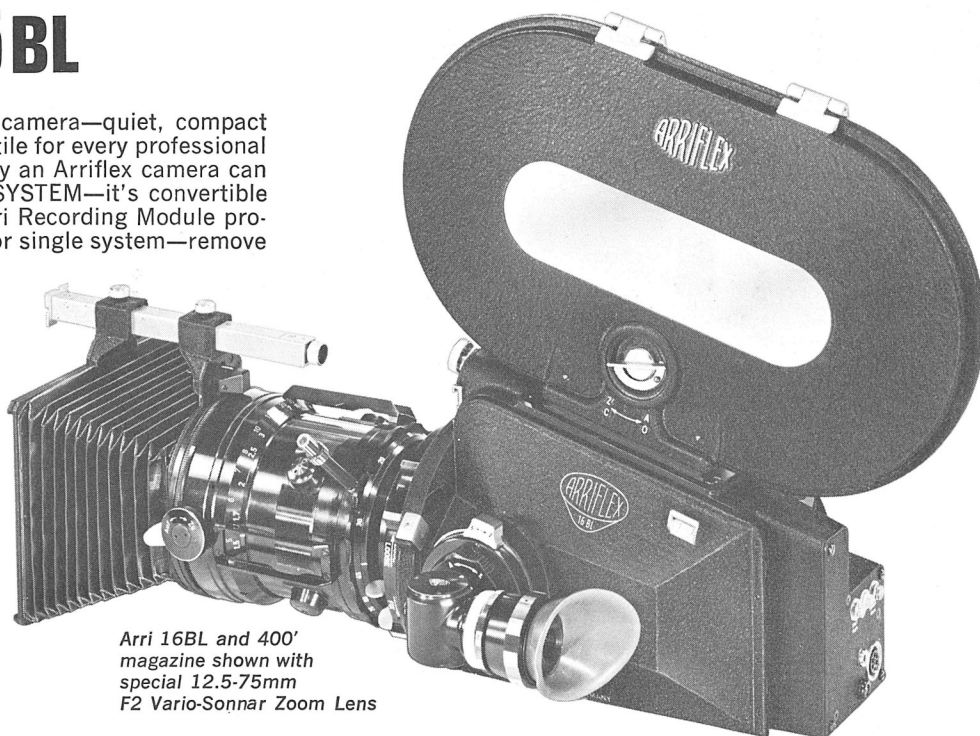
ARRIFLEX® 16BL

The Arriflex 16BL is a location sound camera—quiet, compact and light—supremely capable and versatile for every professional assignment—rugged and reliable as only an Arriflex camera can be. DOUBLE SYSTEM and/or SINGLE SYSTEM—it's convertible without the use of special tools. The Arri Recording Module provides for this unique capability. Add it for single system—remove it for double system sync-sound—it's as simple as that! Residual noise level of the 16BL is approximately 31 db. Weighs only 18 lbs., including special 12-120mm Angenieux zoom lens, 12V, DC governor-controlled motor and BL-400' magazine.

The Arriflex 16BL, hand-held or tripod mounted, brings to location, sync-sound filming the same uncompromising quality, portability and proven reliability that has made Arriflex cameras famous throughout the world.



Write for
ARRIFLEX 16BL
10 page brochure



Arri 16BL and 400' magazine shown with special 12.5-75mm F2 Vario-Sonnar Zoom Lens

heavy-duty steel Bayonet-Lock lens mount and turret lock

ARRIFLEX® 35

MODEL 2C/B CAMERAS

Compact, versatile and rugged, the Arriflex 35 2C/B series master every filming assignment. From launch pad to science laboratory, on location or sound stage, Arriflex 35 cameras are first choice of professionals wherever motion pictures are used to teach, document, influence, entertain or sell.

This advanced model 2C/B series incorporates improved finder optics: **larger field, interchangeable ground-glass, and a divisible finder system** along with Arriflex's famed mirror-shutter optical system, cardioid film movement and lightweight portability. A ready-to-shoot Arriflex 35 2C/B with three lenses, 400' magazine and hand-grip motor weighs only 13½ lbs!

Professional filmmakers depend upon the Arriflex 35 2C/B cameras to deliver theatre-quality footage under any filming conditions—reliably and economically.



Write for
ARRIFLEX 35 2C/B
10 page brochure

Illustration shows basic Arriflex model 2C/B with accessories. Also available: **Model 2CV-B** with variable shutter; **Model 2CGS/B** with 60-cycle generator and automatic clap-stick; **Model 2CS/B** specially equipped for operation to 80 fps; **Model 2CT/B** factory equipped for 2 perforation pull-down and Techniscope format.

